

Harnett County Working Lands Protection Plan

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Acknowledgements

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Executive Summary

The goal for the Ft. Bragg Base Realignment and Closure (BRAC) Regional Task Force (RTF) Working Lands Protection Plan is to provide guidance for the common good for the region as Ft. Bragg absorbs Ft. McPherson as part of the BRAC program. Agriculture will be impacted by this expansion as will other businesses and communities. Due to the economic impact of agriculture on the region and in Harnett County, local leaders need to consider agriculture as they plan for this growth.

Throughout this plan, the word *agriculture* follows the North Carolina Legislature's general statute definition of bona fide farms: at least 10 acres of agriculture or five acres of horticultural land that produces an average gross income from the sale of agricultural products of at least \$1,000 and/or forestland with a minimum of 20 acres that is managed under a written, sound forest management plan for the production and sale of forest products.

The BRAC region in North Carolina is fortunate to have a strong agricultural presence, and this presence is valued by the military. Landowners often grant permission for the military to use their lands for training or other needs. The open space in the region allows the military to operate and train without hindrance from development.

The BRAC region is also experiencing the same pressures that the entire state of North Carolina faces since North Carolina was named the fourth fastest growing state in the country by the U.S. Census in December 2008. This was attributed to the accolades for business and livability by various national magazines such as Forbes and Money. At the same time, the N.C. Department of Agriculture and Consumer Services announced that North Carolina has lost 600,000 acres of farmland since 2002 (NCDA, press release, February 24, 2009). Harnett County's industry and development shifts mirror these statewide trends.

The Working Lands Protection Plan at the county level is committed to analyzing and understanding the agricultural economy of the county, to developing a farmland preservation plan that will address the issues facing Harnett County's farmers and to setting the stage for agricultural growth in the future.

The agriculture industry in Harnett County consists of 727 farms with 111,770 acres of land designated as farmland. Harnett County's loss of farmland from 2002 to 2007 was 2,591 acres (U.S. Census of Agriculture County Profile, 2002 and 2007).

In 2006, Harnett County's total agriculture and agribusiness employment was 13.2 percent of the county's total employment. The total value-added income or the gross county product for Harnett County in 2006 was \$1,772,579,000, with agriculture/food industries reporting a total income of \$262,029,350; natural fiber industries \$17,009,816; and the forestry industries \$33,685,724.

All agriculture and agribusiness industries had a combined total income of \$312,724,890 or 17.6 percent of the gross county product. When compared to the majority of neighboring counties, this percentage is much smaller for Harnett County. Table 1 represents a comparison of Harnett County to the other BRAC counties with regard to the impact of agriculture to the value-added percentage of the county income. (Walden, IMPLAN, Mig, Inc., 2006)

Harnett County epitomizes the situation that agriculture is facing in this region and across the state. Agriculture remains the economic engine of the county and a strong component of the employment base. At the same time, Harnett County is geographically positioned between Cumberland County and Wake County and is poised to be faced with urban pressure as population in contiguous counties continues to increase. The future of agriculture in Harnett County rests on the county's ability to recognize the challenges, threats, and opportunities that agribusinesses and agricultural producers will face to remain economically viable. The intent of the Harnett County Working Lands Protection Plan is to identify these parameters and recommend actions to assist local government officials in planning for growth while acknowledging the importance of agriculture to the county and region.

Table 1. Agriculture as a Percent of Value-Added County Income

County	County Value-Added Percent
Harnett	17.6
Bladen	69.9
Cumberland	4.1
Hoke	18.6
Lee	13.4
Montgomery	33.9
Moore	16.7
Richmond	29.2
Robeson	28.5
Sampson	76.2
Scotland	23.4

Source: IMPLAN Mig., Inc.

Statement of Need for Action

Agriculture makes a major contribution to the well being of both rural and urban Harnett County residents. Agriculture directly impacts the local economy through farm gate products receipts, service and production input expenditures, farm employment, and farm support businesses. Farmers also make significant contributions as stewards of the undeveloped land (often called “open-space”) that they manage in the county. As a result of the farm community’s commitment to stewardship, the county’s soil and water resources are protected, groundwater is recharged, stormwater runoff is abated, wildlife habitat is preserved, and scenic and historic vistas that define the county’s character are safeguarded. Economically and environmentally, it is in the county’s interest to promote the local agricultural industry and support farmland preservation. Policies and programs that encourage and support farmers to continue to farm is a cost effective way of maintaining the quality of life for all Harnett County residents.

As demonstrated by data supplied in this document, Harnett County is losing farmland. Proximity to large urban counties and military installations has increased the development potential for this predominately rural county. With thoughtful action, Harnett County can help mitigate the unique set of stresses that agriculture faces.

The purpose of the Harnett County Working Lands Protection Plan is to highlight the challenges faced by the agriculture and forestry industries in the county. This document strategically devises an action plan to assist local governments in recognizing and supporting programs and policies that can continue to support the preservation and growth of these industries. To fully recognize the challenges and opportunities that farms and forests face, it is imperative to determine aspects of Harnett County that influence these industries. The county’s history, geography (including soil resources), economy, demographics, development trends, and regulations governing farming constitute the view of agriculture in the county. Equally important is an understanding of the issues and concerns of Harnett County farmers.

North Carolina agriculture is the foundation that supports the \$70 billion agribusiness industry. The N.C. Department of Agriculture’s Agricultural Development and Farmland Preservation (ADFP) Trust Fund was legislated to encourage the stability of the state’s agricultural economy by preserving working lands. With the support of the ADFP Trust, the Working Lands Protection Plan (WLPP) formulated for Harnett County will guide county and local government leaders to consider policies and practices that will maintain farm family income, retain agricultural-related jobs, and increase public awareness about the importance of farms and farm families to Harnett County’s economy. Agriculture and agribusiness account for nearly 20 percent of North Carolina’s jobs and income, but the industry faces changing technologies, global markets, diversifying consumer demands and environmental regulations.

Economic trends in the last three decades have favored a knowledge-based economy, free-trade agreements, and an exploding growth of the service sector resulting in

continued growth and expansion of urbanization. The number of tobacco farms, statewide, has decreased by approximately 70 percent since 2002, and the cotton farms decreased nearly 40 percent (N.C. Department of Agriculture and Consumer Services, press release, February 2009). Harnett County, since 1997, has experienced only a 1 percent decrease in the number of farms but has seen a commodity shift with tobacco acreage increasing for 2002 to 2007 and cotton acreage declining (USDA Census of Agriculture, 2002 and 2007).

Although the decline in agriculture acreage statewide is of dire concern, Harnett County has resisted large losses in farm numbers. However, with the North Carolina Department of Agriculture's Agricultural Statistics 2008 Report indicating that the average age of Harnett County farmers is 57 years of age, there exist concerns for increasing rates of farm losses. Pressures include the existing farming population aging out of the industry coupled with growing pressure from development. These factors and others increase the need for recognition of the importance of agriculture to Harnett County's economy and a need to provide an environment in the county to support this industry and its growth.

Attributes of Harnett County

Harnett County became a political entity in 1855 and was named for the Revolutionary War Patriot, Cornelius Harnett. The first settlers came in the mid 1720s. Only after 1880 did the population begin to establish itself in urban rather than rural areas. Lillington, Dunn, Coats, Angier, and Erwin became trading and commercial areas. Today about one-fifth of the population resides in towns or villages. Agriculture and agricultural products are the greatest source of income to the county. The preponderance of the population is either engaged directly in agriculture or derives a major portion of its income from the economy created by agricultural pursuits (History of Harnett County, www.Harnett.org).

Harnett County is in the eastern section of the state and is bounded by Chatham, Cumberland, Hoke, Moore, Lee, Wake, Johnston, and Sampson counties. (Figure 1) The land area is 595.01 square miles, and the population is approximately 110,098 as of 2008 (U.S. Census Bureau, Harnett County Quick Facts, 2008).

Location

Harnett County is ideally situated, with I-95, I-40, US 301, US 421, and US 401 providing easy access to regional and national markets. North Carolina routes 24, 27, 42, 55, 82, 87, 210, and 217 also provide direct links throughout Harnett County. Transportation access offers mobility of products and people while offering great opportunity to both commercial and residential development along these thoroughfares.

The globally recognized Research Triangle Park and Raleigh-Durham International Airport are less than an hour away, and Fayetteville's airport is half that distance. N.C. State University is within an hour's drive. The excellent road system that transects the county affords many opportunities to the county for growth, which has been recognized over the last few years.

Harnett County is positioned in one of the fastest growing areas of the state. Local leaders are taking care to preserve the scenic beauty that draws visitors to the area. Parks and other green spaces are a high priority, and several new parks have recently opened or are planned. Harnett is now moving into the industrial development phase. Community planning is being undertaken on an unprecedented scale, and attitudes are emerging that hold promise of broadening the county's economic base (History of Harnett County, www.Harnett.org).

Natural Resources

There are four rivers that flow through Harnett County: Black River, Upper Little River, Lower Little River, and, most importantly, the Cape Fear River. The county is in the Cape Fear River Basin. The mineral resources that have been important to the county are

gravel, iron, sand, and Koalin. There are 27 different soil types mapped in Harnett County due to the fact that the county lies within both the Coastal Plains and Piedmont Plateau (Harnett County Soil Survey, 1994, USDA Natural Resource Conservation Service). Also, Harnett County has an abundant amount of forest land and parks. The agricultural industry consists of livestock, horticulture, field crops, forest land, agritourism, and specialty crops.

Rural Attractions

Agritourism is defined as the practice of attracting travelers or visitors to an area or areas used primarily for agricultural purposes. The industry can be viewed much like eco-tourism, which may be a primary, supplementary, or complementary enterprise. Harnett County has a variety of activities available including camping, hay rides, music and harvest festivals, county fair, fishing, hunting, canoeing and rafting, hiking, biking, horseback riding, hang gliding/hot air balloon rides, rock climbing, sports, and bird watching.

The area's largest and best-known park is Raven Rock State Park, which totals 4,667 acres and is of interest to visitors and citizens of Harnett County alike. The county has also completed and approved a master plan for a new county park in western Harnett County. West Park, a 1,200-acre county park adjacent to the Anderson Creek Township, is a natural longleaf pine ecosystem that will feature environmental education programs, as well as provide citizens and visitors with the use of horse trails, walking trails, playgrounds, an amphitheater and much more.

Rural Lifestyle

Keeping farms and forests in production maintains the quality of life in Harnett County. Rural working landscapes are an integral part of our heritage that should be preserved for future generations. Without preservation of agricultural areas, the rustic landscape that attracts people and industry to Harnett County will disappear. Harnett County combines the benefits of living and doing business in a rural county with the economic and cultural opportunities afforded by North Carolina's capital and the acclaimed Research Triangle Park simply because of its proximity.

Also, the county offers a wide variety of real estate for sale from the rural atmosphere to urban lifestyle. The Harnett County property market is priced below state and national averages. In 2007 the median house value in Harnett was \$116,900 compared to \$145,700 for North Carolina ([www.City-Data.com/Harnett County](http://www.City-Data.com/Harnett%20County)). The average sale price of a new home in Harnett County is \$208,359, or \$94.71 per square foot (Fayetteville Association of Realtors, November 2009 Absorption Report). Appreciating home, housing, and land values in Harnett County enhance the selection of houses, rentals, and commercial real estate properties for sale.

Climate

The coastal plain transitions into the Piedmont region in Harnett County, and this gives the area four distinct seasons. The climate is temperate for the most part, with only a few days a year over 90 degrees or below freezing. According to the Southeast Regional Climate Data Center, the approximately 40-year average temperature for the summer is 87 degrees and for the winter 31 degrees. Average precipitation is 50.6 inches.

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Figure 1. Source: Harnett County, N.C., Transportation

Overview of Agriculture in Harnett County

State of Agriculture in Harnett County

North Carolina lost more than 600,000 acres of farmland from 2002 to 2007 according to the latest U.S. Census of Agriculture. The state has added a million people since 2000, and farmland is prime land for development consideration. In Harnett County, the acreage loss of farmland from 2002 to 2007 was 2,591 acres. The number of farms decreased from 730 to 727 as noted in Table 2.

County tax parcel records from Harnett County indicate the location of agricultural properties that are designated as taxable at present value (Figure 2). Harnett County also has a robust Voluntary Agriculture District (VAD) program where participation indicates heightened attention to farmland sustainability (Figure 3). There are currently over 10,000 acres enrolled in the VAD program (N.C. Cooperative Extension, Harnett County, 2010).

Trends in agricultural activities from 2002 through 2007 have indicated an increase in the production of some row crops and a decline in the production of livestock and poultry. The number of acres of corn produced increased 2,765 acres from 2002 to 2007. Also, the number of acres of tobacco produced increased 699 acres during the same period, while the number of acres of cotton produced declined 2,873 acres. The increased acreage of corn planted can be attributed to the increase in commodity price as a result of increased demand for alternative uses such as ethanol. Cotton prices conversely have seen marked decreases, and thus a statewide decrease has been noted in production. Finally, the tobacco buyout and removal of the quota program has resulted in an increase in tobacco acreage not only in Harnett County but in many counties across the state (N.C. Agricultural Statistics 2002, 2006 and 2007).

A notable decrease in broiler production has occurred in Harnett County. The number of broilers has decreased a total of 3,110,613 from 2002 to 2007. Cattle production has decreased in numbers by 305. Hog production decreased by 8,645 during the same period (Table 3, U.S. Department of Agriculture Census 2002, 2006 and 2007). This trend indicates that farmers are downsizing their livestock and poultry production which may be due to governmental regulations, the high cost of feed, and other inputs. However, the total cash receipts from crops and livestock, along with government payments to farmers, have increased a total of \$58,809,000 from 2002 to 2007 (Table 4, N.C. Agricultural Statistics 2002, 2006, and 2007). This is an indication that Harnett County continues to be a strong agricultural county, and preserving agriculture and agribusiness is important to the county's future.

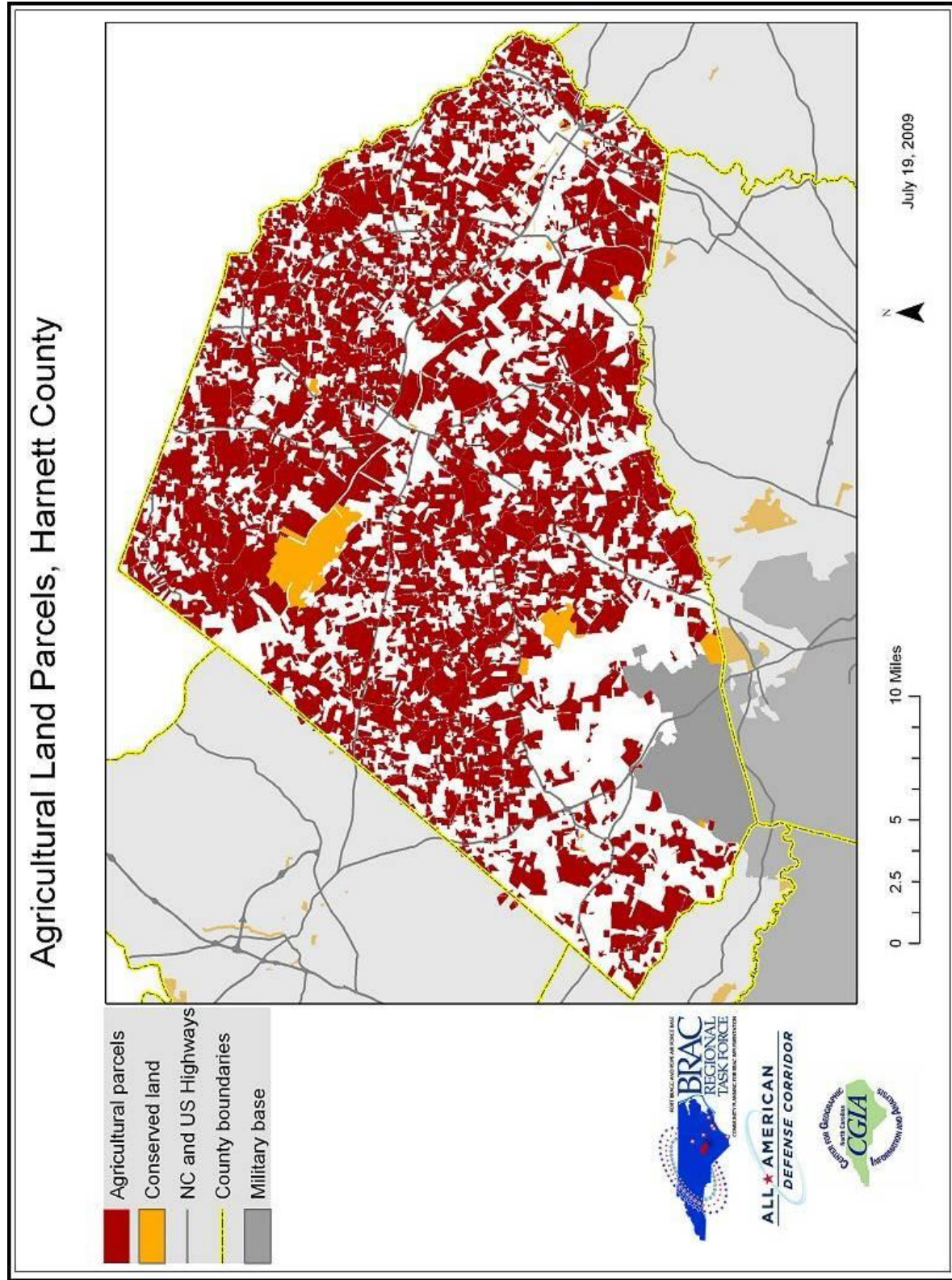


Figure 2. Harnett County Parcels in Present-Use Tax Status. Source: CGIA, Harnett County

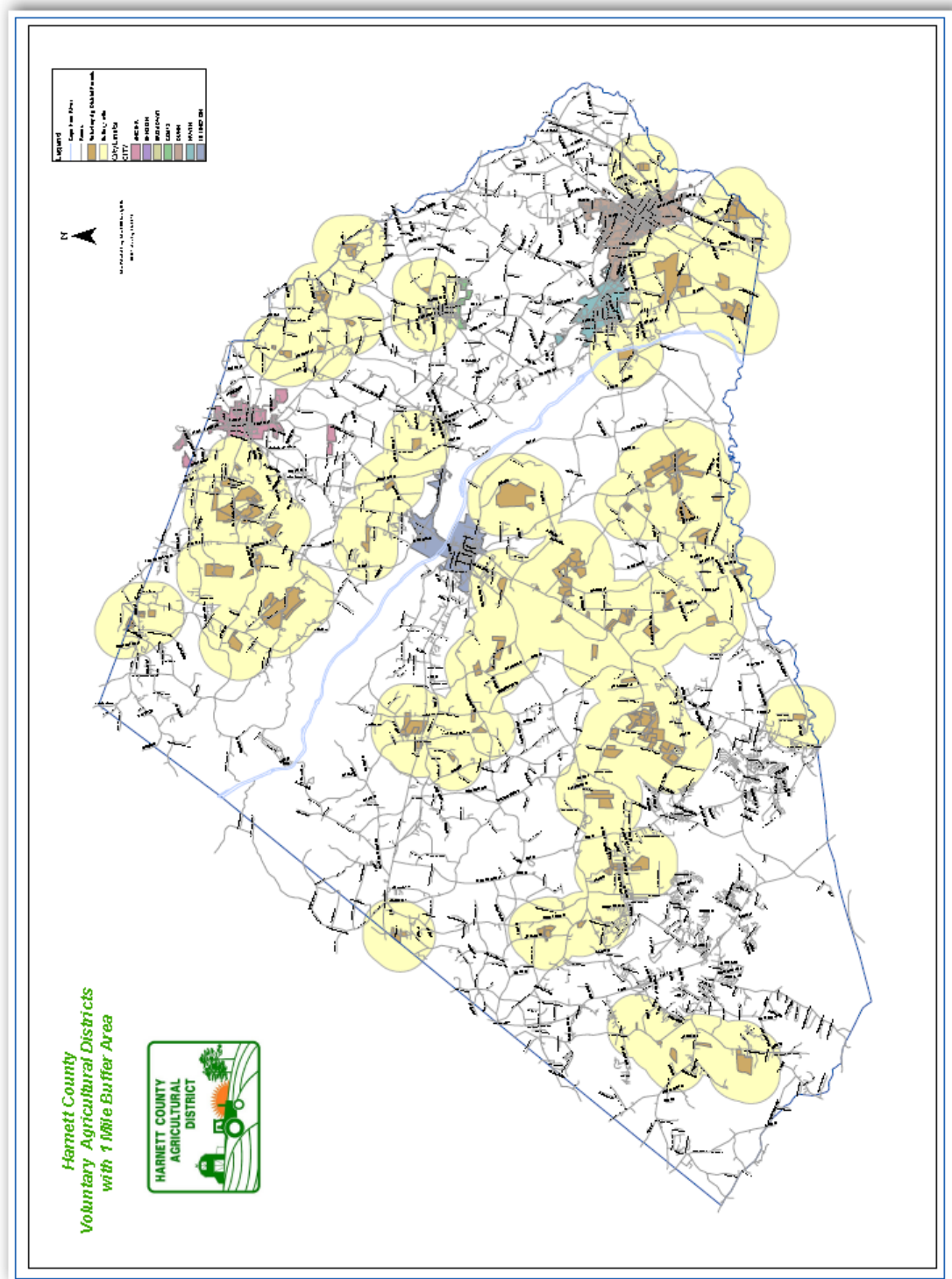


Figure 3. Voluntary Agriculture Districts

Table 2. Farms in Harnett County

Year	1997	2002	2007
Number of Farms	740	730	727
Total Land in Farms	112,899	114,363	114,361
Average Farm Size	159	157	154

Source: U.S. Census of Agriculture County Profile 1997, 2002, 2007

Table 3. Agricultural Production in Harnett County

Product	2002	2006	2007
Corn (acres)	3,135	3,700	5,900
Corn (bu.)	149,234	422,000	323,000
Cotton (acres)	14,473	14,700	11,600
Cotton (bales)	9,153	19,500	10,300
Tobacco (acres)	5,321	5,730	6,020
Tobacco (lbs.)	11,511,841	14,000,000	15,050,000
Broilers (no.)	31,110,613	27,800,000	28,000,000
Cattle (no.)	8,605	8,500	8,300
Hogs/Pigs (no.)	75,145	68,000	66,500

Source: N.C. Agricultural Statistics 2002, 2006 and 2007

Table 4. Cash Receipts, Harnett County

Year	1997	2002	2007
Crops	\$29,900,000	\$38,807,000	\$44,383,000
Livestock/Poultry	\$75,133,000	\$100,988,000	\$106,538,000
Gov. Payments	\$1,408,000	\$32,052,000	\$14,309,000
Total	\$106,441,000	\$171,846,000	\$165,230,000

Source: N.C. Agricultural Statistics 2002, 2006 and 2007

The 2007 U.S. Census of Agriculture notes that agricultural use takes up one-third (111,770 acres) of Harnett County's 380,757 total acres. The average value of farms and buildings is \$815,320 with the average market value of machinery and equipment adding \$83,238 in value. Harnett County ranked 8th in the state in tobacco production and 11th in both the production of oats and sweet potatoes. Livestock is important to Harnett County with the county ranking 8th in broiler production and 10th statewide for all livestock produced (NCDA&CS Agricultural Statistics, 2008).

In 2006, agriculture and agribusiness in Harnett County brought in a total of \$312,724,890, which represented 17.6 percent of the county income. The total employment in agriculture and agribusinesses was 4,694, which represented 13.2 percent of the county employment. Table 5 documents the predominance of agriculture to the economy of Harnett County.

Commercial horticulture, nursery, greenhouse, and floriculture, according to the N.C. Department of Agriculture and Consumer Services Agricultural Statistics Annual Report 2008, is recognized for contributing over \$4.5 million to the county's economy. Harnett County ranks 39th in the state in income from these enterprises. A continuing trend for growth in this production area is expected as Harnett County continues to grow both residentially and commercially.

In Harnett County, agritourism is present in a number of venues, examples of which are hunting preserves and horse riding facilities. The county has hunting preserves, corn mazes, berry pick-your-own facilities, educational farm tours, and riding facilities that have boarding and carriage driving. Agritourism is a growing business that can help expand what landowners and producers can offer to the public.

Table 5. Agriculture and Agribusiness, Harnett County, 2006

Agriculture/Food Industry	
Farming	\$190,771,990
Manufacturing	\$12,548,000
Wholesaling/Retailing	\$58,709,360
Total	\$262,029,350
Share of County Value-Added	14.8 percent
Natural Fiber Industries	
Farming	\$5,841,296
Manufacturing	\$5,657,400
Wholesaling/Retailing	\$5,511,120
Total	\$17,009,816
Share of County Value-Added	1.0 percent
Forestry Industries	
Farming	\$9,580,000
Manufacturing	\$21,165,000
Wholesaling/Retailing	\$2,940,724
Total	\$33,685,724
Share of County Value-Added	1.9 percent
Total Income	
Total County Value-Added	\$1,772,579,000
All Agriculture and Agribusiness Industries	
Total Income	\$312,724,890
Share of County Value-Added	17.6
Total Agricultural/Agribusiness Employment	
Total Employment	4,694
Share of County Employment	13.2 percent

Source: Data are from IMPLAN (2006, Mig, Inc.)

Definitions: Dollar-values are value-added, which is the production value using inputs from Harnett County. Employment is full- plus part-time employment.

Forest Land

Forestry plays a large role in the economy of Harnett County. However, the estimated income for 2001, 2002, and 2008 shows a decrease over the past six years. This decrease may be due largely to the time factor for the maturation of trees for timber. The timber industry has also been impacted by the reduction in construction due to the global economic crisis that has occurred over the last few years. Table 6 gives a perspective of Harnett County's income from estimated stumpage and delivered timber (N.C. Cooperative Extension).

According to the N.C. Division of Forest Resources (DFR) in Harnett County, there were 1,474 management plans, reforestation plans, and stewardship plans for timber land created from 1998 to 2008. This covered 60,972 acres in the county, which was almost 30 percent of the total forest land in the county. During the same time there were 858 tree planting projects covering 17,784 acres in the county. Due to requirements to have a sound forest management plan for the County Tax Office and efforts by the rangers with DFR, the number of management plans has increased in recent years. There were 194,500 privately owned forested acres in Harnett County in 2009 (Harnett County DFR, 2009).

The forestry industry is also part of the agricultural equation. In Harnett County, there are 95 consulting foresters who operate and 58 entities that buy timber. There are also several large pine straw operations. These businesses contributed to the \$13,070,000 income from all forest products in the county (NCDA, Forest, Fish, and Seafood Income, 2007).

**Table 6. Income From Harnett County Timber
Harvested and Delivered**

	2001	2002	2008
Stumpage	\$31,393,897	\$29,945,897	\$8,100,935
Delivered	\$39,379,771	\$40,345,168	\$12,674,810

Source: Jeuck and Bardon, NCSU, Income of North Carolina Timber, 2008; NCSU Forest Extension, N.C. Forest Income Estimates by County 2001, 2002.

Note: Stumpage-price paid to timber owner for standing timber; delivered-price paid to timber buyer upon delivery of timber to mill (Jeuck and Bardon, NCSU, Income of North Carolina Timber, 2008).

Communities of Prominent Farming

A great deal of the eastern portion of Harnett County contains soils suitable for agriculture. Much of this area, in particular the I-95 corridor, between Angier and Lillington and between Erwin and Coats, continues to experience development, which is competitive to the use of this land for agriculture.

The area generally west of Lillington, north of NC 27 and south of the Cape Fear River contains significant areas of prime farmland soils. Tax parcel records from Harnett County indicate the location of agricultural properties that are designated as taxable at present value (Figure 2). The southeast area of the county generally west of NC 87 does not consist of acreages of prime soils. However, agriculture is present in this area of the county and a need for farmland preservation exists.

There is localized support for farmland protection in this area. The majority of the present VADs are located in the central section of Harnett County according to the GIS map for VADs (Figure 3).

Soil Types

Table 7 gives the actual and relative extent of the various soil types mapped in Harnett County. Well over two-thirds of the soil types and associations in the county are very well suited for agriculture. The nature of the soils being well drained and of good tilth make these very attractive to both residential and commercial development as well as agriculture.

Land capability classification is a system of grouping soils primarily on the basis of their capability to produce commonly cultivated crops and pasture plants without deteriorating over a long period of time. The variable is "NIRRCAPCL" (non-irrigated soil; class 1 has the least limitations/highest capability, and class 8 has the greatest limitations/lowest capability). The source is the Natural Resources Conservation Service (NRCS) Soil Data Mart <http://soildatamart.nrcs.usda.gov/>. Soil capability is highest (class 1-2) or high (3) in much of the county (Figure 4).

Soils are also important for forestry, and forest production varies according to soil types. Classes for site index values are based in part on the 2007 Use-Value Manual, N.C. Department of Revenue, 2007. High ratings have site indexes of 66 to 85 and greater than 85 for loblolly, and 65 to 75 and greater than 75 for longleaf. The source is the Natural Resources Conservation Service (NRCS) Soil Data Mart <http://soildatamart.nrcs.usda.gov/>. Soils tend to be productive for loblolly production in much of the county and productive for longleaf away from the streams and wetlands (Figures 5 and 6).

Table 7. Distribution of Harnett County Soil Types

Soil	Acres	Percent	Soil	Acres	Percent
Norfolk sand	46,208	26.2	Chastain loam	4,416	1.2
Sandhill phase	53,504				
Norfolk sandy loam	52,096	19.4	Congaree silt loam	3,776	1.0
Deep phase	21,696				
Ruston sandy loam	36,160	9.5	Kalmia fine sandy loam	3,648	1.0
Hoffman sandy loam	30,848	8.1	Cecil stony fine sandy loam	3,456	0.9
Cecil fine sandy loam	15,232	4.0	Norfolk coarse sand	3,264	0.8
Ruston gravelly sandy loam	15,168	4.0	Gravel hills	3,264	0.8
Cecil gravelly sandy loam	11,776	3.1	Cecil stony clay loam	3,200	0.8
Ruston fine sandy loam	11,712	3.1	Portsmouth loam	2,944	0.8
Wickham fine sandy loam	11,712	3.1	Appling fine sandy loam	2,752	0.7
Swamp	10,048	2.6	Coxville sandy loam	1,536	0.4
Norfolk silt loam	9,344	2.4	Johnston loam	1,472	0.4
Cecil clay loam	8,960	2.3	Appling gravelly fine sandy loam	960	0.3
Coxville silt loam	6,528	1.7	Rock outcrop	128	0.1
Ochlockonee silt loam	4,992	1.3	Total	380,000	

Source: U.S. Department of Agriculture, Bureau of Soils

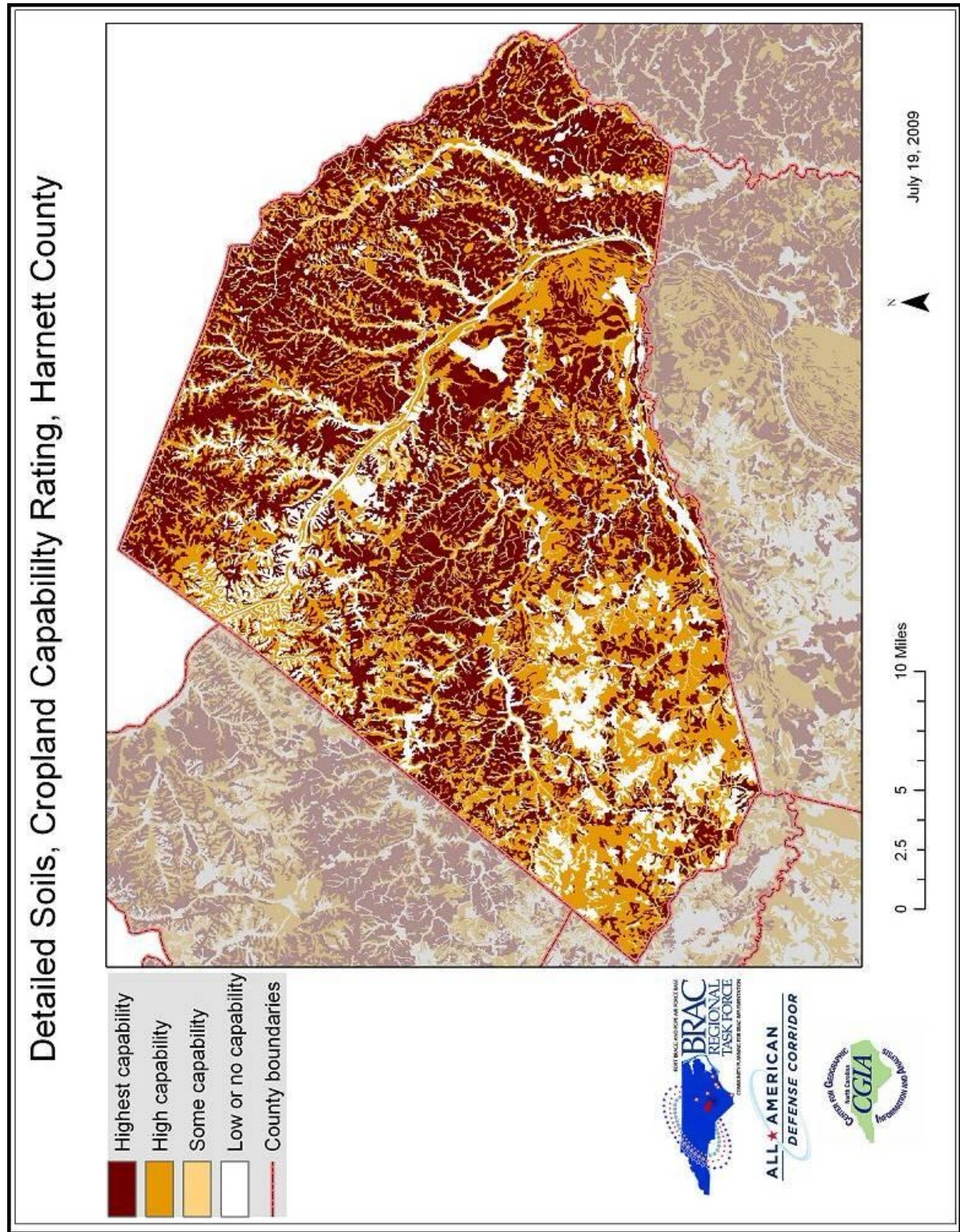


Figure 4 . Crop Capability Rating from Detailed Soil Survey. Source: Natural Resources Conservation Service.

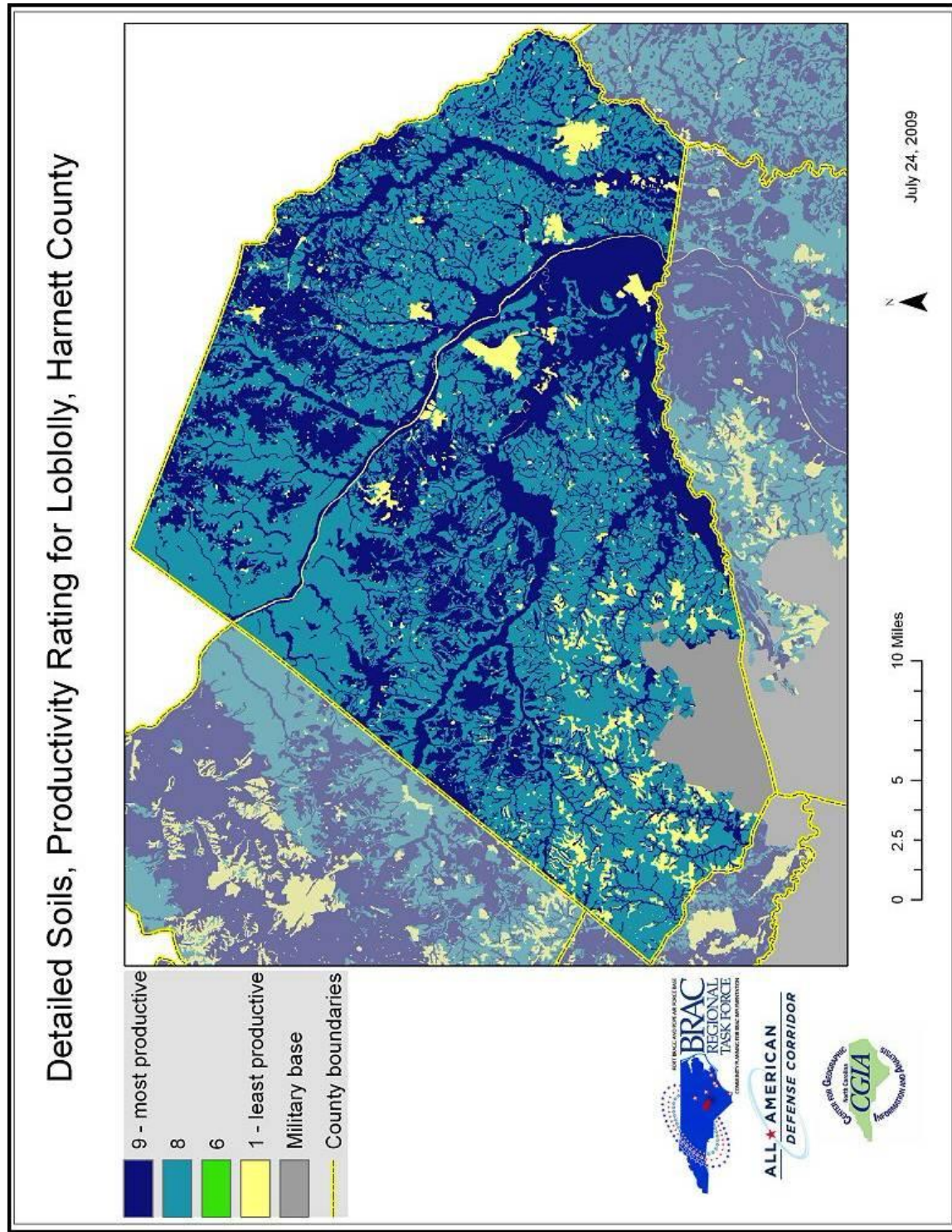


Figure 5. Detailed Soils, Rating Based on Site Index for Loblolly Productivity

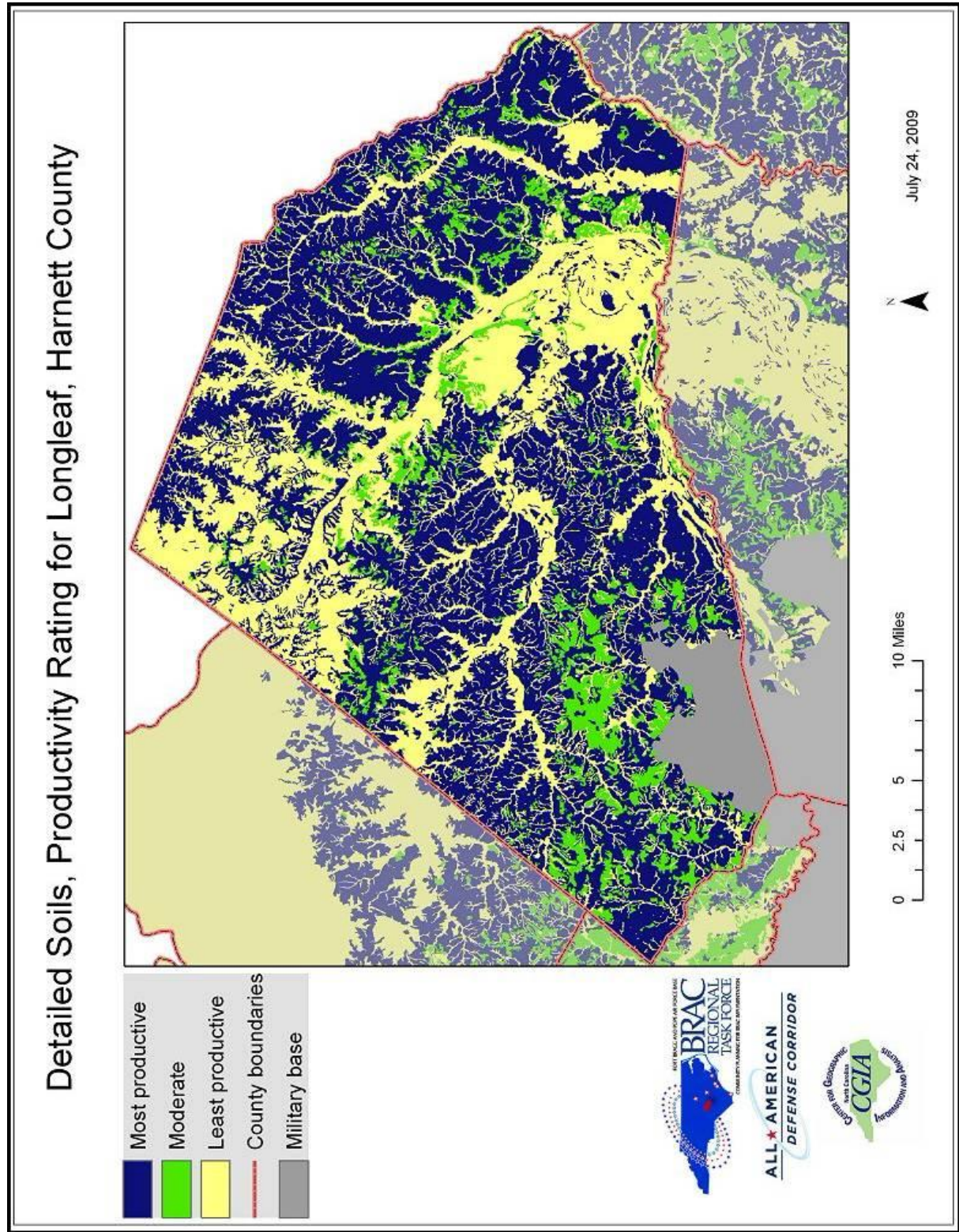


Figure6. Detailed Soils, Rating Based on Site Index for Longleaf Productivity

Ecosystems Service

Natural stream functions in many areas of North Carolina are threatened by changes in watershed hydrology and land use, often resulting in incised stream channels. Impacts include impaired habitat, fish kills, unsafe water suppliers, flooding, loss of floodplain function, and reservoir siltation. Causes of impairment include impoundments, diversions, urbanization, agriculture, forestry, transportation and loss of riparian vegetation. All of these factors affect stream stability, which is defined as the ability of a channel to carry the water and sediment delivered by its dimension, pattern and profile while neither aggrading nor degrading (*Natural Channel Design Approaches for Stream Restoration in North Carolina*, Jennings, NCSU, 2003).

The Cape Fear River supplies Harnett County with ample water to serve its needs. There are two water supply intakes on the Cape Fear River, one near Lillington and another near Erwin. The watershed area encompasses much of the US 401 corridor, NC 27 north of the Cape Fear River, between Lillington and Coats, much of the US 421 corridor west of Lillington to east of Erwin, the town of Lillington, the town of Buies Creek, and portions of Erwin and Coats. The Little River also crosses Harnett County from west to east converging with the Cape Fear around Erwin. Harnett County appears to be strategically placed to have adequate water resources should water use restrictions or limitations become more prominent not only for agricultural uses but for municipal uses as well (Harnett County, Cape Fear Water Supply Meeting, N.C. Division of Water Resources, October 2007).

The land cover view, or what is visible from an aerial view, shows land surface such as forest, farmland, wetland, water body, pavement or rooftop, pasture, grassland, or lawn. Developed areas (rooftops and pavement) are evident in the urban areas. Cultivated areas (yellow) are more common east of the Cape Fear River (Figure 7).

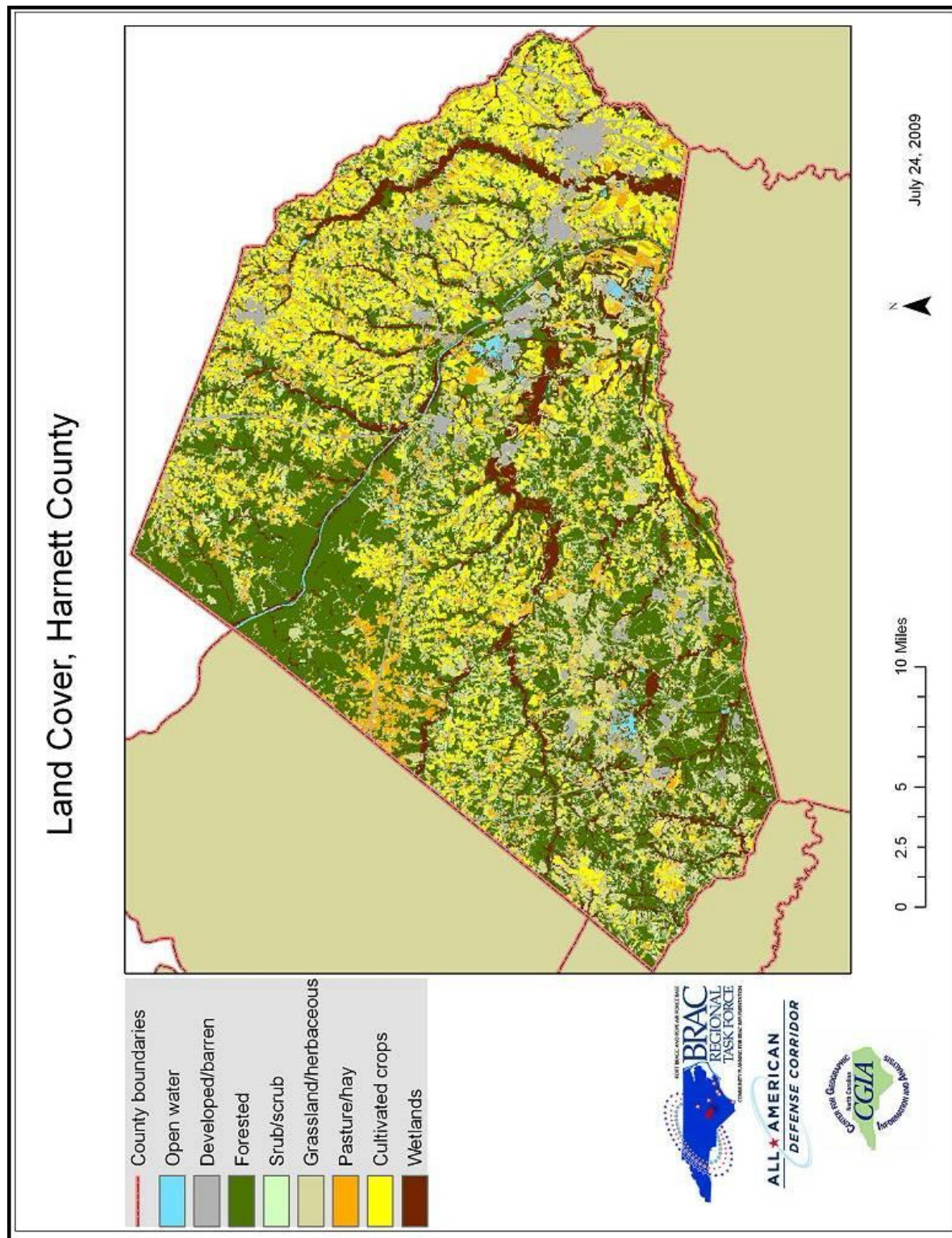


Figure 7. Land Cover by Type. Source: U.S. Geological Survey

Natural Heritage Areas

Significant Natural Heritage Areas of Harnett County are as follows:

Fort Bragg Lake Lindsay and Uplands contain an excellent example of a natural boggy beaver pond as well as a larger impoundment. These wetlands harbor seven rare plants.

Fort Bragg NC 87 Power Lines have some of the best examples in Harnett County of the stream head pocosin community, home to one federally endangered plant (rough leaf loosestrife) and one federally endangered bird (red-cockaded woodpecker).

Fort Bragg NTA Seeps Natural Area contains a mosaic of high quality seepage and stream head communities, including a large sloping canebrake.

Fort Bragg NTA Twig-Rush Bog Natural Area has a very large, high-quality sandhill seep community that ranks among the largest and most species-rich in the state.

Fort Bragg Overhills Lake's major feature is an old impoundment with picturesque pond cypress (*Taxodium ascendens*). The lake supports three species of rare plants and a small colony of nesting great blue herons,

Fort Bragg Overhills Sandhills is one of the largest blocks of contiguous good quality longleaf pine vegetation in the state.

Long Valley Farm Natural Area has high quality cypress-gum swamp, good quality longleaf pine communities, an old millpond with cypress trees, and is a historic property. The property also provides a buffer to Fort Bragg from future development.

Byrd Farm Industrial Park Natural Area has a high-quality hardwood forest on riverside slopes, extensive rocky riffles, plus a remnant swamp forest on the upper river terrace.

Camp Agape has good quality hardwood slopes, a floodplain forest with many old trees, and a large beaver pond. Bald eagles (*Haliaeetus leucocephalus*) formerly nested here.

Cape Fear River Canebrakes contain the last large patches of bottomland hardwoods anywhere on the Cape Fear River's high terrace.

Raven Rock State Park features tall cliffs and rich floodplain forests.

Smith Grove Ravines are tributaries that have cut through the high banks of the Cape Fear River to form twisting ravines up to 90 feet deep.

Upper Cape Fear River Aquatic Habitat is the longest free-flowing section of the entire Cape Fear River.

Big Gully Wetlands contains the county's largest complex of beaver ponds and floodplain pools.

Covington Road Powerline Savanna harbors a number of plants not found elsewhere in Harnett County.

Horseshoe Bends is a twisty stretch of Lower Little River where the river nearly loops back on itself several times. This stretch has the river's best cypress-gum swamp.

Lower Little River (Cumberland/Harnett) Corridor is one of the most ecologically diverse portions of Harnett County.

Twin Oaks Trails contains a large complex of beaver ponds, floodplain pools, and old river meanders.

West Park Natural Area is the largest remaining longleaf pine (*Pinus palustris*) habitat in Harnett County, outside of Fort Bragg.

(Source: North Carolina Natural Heritage Areas of Harnett County)

Trends Facing Harnett County

Agriculture

Due to urban expansion in the United States, farmland continues to disappear at an alarming rate. The increasing popularity of residential large-lot development escalates this loss of productive agricultural land. This is a widespread problem that is depleting the vital natural resources of farmland across the nation. Maintaining prime agricultural land allows communities to sustain local agricultural economies, increase the production of local agricultural produce, and maintain the environment and aesthetic benefits associated with these lands (Farmland Preservation: The Benefits of Saving Our Agricultural Land and Resources 2006).

Many locations across the nation have few or no policies related to farmland preservation. The adoption of farmland preservation policies geared to protect prime farmland will directly benefit both the rural and urban communities. Harnett County has started this process with the Voluntary Agriculture District (VAD) program. The response to the VAD program has been significant and has had a positive impact on agriculture and on the community's understanding of agriculture. It is discussed further under the Farmland Preservation Options section.

Between 1992 and 1997, more than 6 million acres of farmland in the U.S. were lost to development. This equates to a loss of two acres of farmland every minute (American Farmland Trust, 2005). During this same period, prime agricultural land disappeared 30 percent faster than more marginal lands. Also, during this same time, the farmland in Harnett County decreased 11,659 acres (U.S. Census of Agriculture, Harnett County, N.C., 1987, 1992 and 1997).

There are a number of reasons to consider the preservation of the agricultural, forestry, and horticulture industries in North Carolina:

- 17 percent of the state's workforce is enrolled in agriculture- and agribusiness-related jobs;
- Agriculture and agribusinesses comprise 20.3 percent of the state's income;
- It is the number-one industry in the state at \$70 billion;
- The state's forestry products industry is the largest manufacturing industry in North Carolina;
- The forest products industries pays annual wages of \$3.6 billion;
- North Carolina's greenhouses, nurseries and turf industries contribute \$8.6 billion to the state's economy and employ nearly 152,000 people. (N.C. Agricultural Development and Farmland Trust Fund).

In 2006, Harnett County reported employment in agriculture and agribusiness at 13.2 percent of the county's total employment and a total income of \$312,724,890 or a 17.6 percent share of county added value. As the county population continues to grow, the trend of employment outside of Harnett County continues to pose challenges and opportunities for the county and the agricultural industry within (IMPLAN, Mig, Inc. 2006).

Keeping farms and forests in production maintains the quality of life for the nation, state, local residents, and visitors. The preservation of agricultural areas will continue to attract people and industry to the state and county. Farmland in Harnett County is a finite natural resource. Areas with prime agricultural soils distributed across the county offer continued opportunity for agricultural production as well as the opportunity for development. Efforts should be made to plan and protect areas where agriculture is occurring and will continue to function and expand. Agriculture is a part of Harnett County's rural lifestyle and is a central component to the economy and to the support of the county. As the population continues to increase there will be an increase of pressure to use prime acres for other uses. Working land preservation is a way of protecting a way of life and ensuring the preservation of the county's heritage.

Harnett County's economic climate and growth is important to consider. In 2007, Harnett County had a per capita income of \$26,612. The average annual growth rate for per capita personal income was 3.5 percent while it was 3.7 percent for North Carolina.

Harnett had a total personal income (TPI) of \$2,888,466. This TPI ranked 29th in the state and accounted for 0.9 percent of the state total (Workforce In-Depth Harnett County 2006).

Earnings of persons employed in Harnett County increased from \$1,106,569 in 2006 to \$1,150,001 in 2007, an increase of 3.9 percent (Bearfacts 1997-2007 Regional Economic Accounts).

As previously noted, the number of farms and the average farm size continue to decrease in Harnett County. This trend is expected to continue as the population continues to increase. Developers tend to look to prime farmland to provide housing in an area. Farm parcel size and farmland characteristics make farmland a chief choice for developers. As the age of local farmers continues to rise, this market begins to look more favorable as a potential for development. The average age of farmers in Harnett County is 57 years old. Fewer and fewer young farm operators are entering the farming sector. This is recognized as an immense challenge facing not only for Harnett County but for North Carolina and the nation (2007 US Census of Agriculture).

In 2006, Mike Walden, an economist with North Carolina State University, reported that agriculture and agribusiness in Harnett County was 4,694 or 13.2 percent of the county's total employment (IMPLAN, MIG, Inc, 2006). This is critical to the economy as Harnett County's unemployment rate in April 2009 was reported as 11.1 percent. How much of this unemployment is actually impacting agriculture is difficult to ascertain.

From 2002 to 2007, farm employment went from 1,592 to 1,258, which represents a 21 percent decline. County representatives attribute this decline to an increase in mechanization and agricultural technologies as well as farm consolidations. Additionally, from 2002 to 2007, there was a 10 percent loss of farms in the county (USDA Census of Agriculture, 2007).

Harnett County is one of the 13 counties that make up the Research Triangle Regional Partnership group of counties. Harnett County is located between the Durham Metropolitan Statistical Area (MSA) and the Raleigh-Cary MSA to the north and the Fayetteville MSA to the south. Harnett County is home to the Dunn Micropolitan Statistical Area and a part of the Durham-Raleigh-Cary Combined Statistical Area (CSA). Also, Harnett County is located in close proximity to the North Carolina Biotechnology Center, a state-supported initiative that provides grants and creative services to support biotech companies. This serves as an opportunity for diversification in agriculture for Harnett farmers and land owners.

The tax rate for Harnett County is \$0.725 (Table 8). The average for the 10-county surrounding areas is \$0.721. When comparing surrounding county tax rates, Harnett County's tax rate is approximately 7 to 8 cents lower than Robeson and Richmond counties while Cumberland County's tax rate is 4 cents higher. The difference in tax rate and the rural character of Harnett County continue to encourage and enhance the desire of people to reside in Harnett while working in adjacent counties.

In 2008, the population for Harnett County was listed at 110,098, and in 2007 the population was 106,506, an increase of 3,592 or 3 percent over a one-year period. Harnett has consistently increased in population each year and is projected to be 122,888 in 2013. Harnett continues to be the 8th fastest growing county in North Carolina (Economic Development Intelligence System, Harnett County, 2009). The trend will be a challenge to maintain the prime farmland while providing the necessary land to develop for family living.

Table 9 illustrates the population of the five towns located in Harnett County. These towns' combined population is 31,912 or 29 percent of the reported county population. Therefore two-thirds of the county population live in rural areas of the county.

The average household size in Harnett County is 2.6 people compared to North Carolina's statewide average of 2.5 people. The estimated median household income for 2007 was \$38,657 which was \$6,013 less than the average for North Carolina. Also, the estimated median house or condo value in Harnett County for 2007 was \$116,900 compared to \$144,700 in North Carolina (www.FedStats.gov). The lower cost of housing will continue to attract residents to use Harnett County as a bedroom community. The majority of the population of the county is currently living in rural sectors with adequate services provided or without the need for additional services noted. With tax rates being equal or somewhat less than surrounding counties and offering more affordable housing, Harnett is recognized as a county in which to reside. Its strong rural heritage

and the natural resources that abound make this even more enticing to potential residents and developers.

The aging farm-owner population and the trend toward reduced farm acreage and farm numbers only continue this rural development trend. The transportation infrastructure and proximity to metropolitan areas make the efforts of farmland preservation one of immediate concern and prominence if agriculture is to remain a viable entity in the county. Agriculture and agribusinesses contribute 17.6 percent to the gross county product (IMPLAN, Mig Inc., 2006).

Infrastructure to support this growth, public water and sewer systems, is likely to change the pattern of farmland in the region. Public systems support commercial, industrial, and residential development and have benefits for surface water and ground water quality. Farms are not reliant on public water and sewer systems. As systems extend beyond municipal areas, new lands become more suitable for development. Areas identified as having planned public sewer are shown in pink hatching in Figure 8. The entire county is served by public water. When compared with the agricultural parcels listed in the county and seen in Figure 8, the future sewer service impacts a significant area of land that is in agricultural protection. The tension is then set between services provided that are geared toward residential, commercial, and industrial development and working lands.

It is important for county leaders to be educated about and remain abreast of the tools and techniques that may allow them to adopt policies and programs that allow landowners options for the preservation of their properties as working farms and forests. An overview of these is important and imperative for local leaders to understand.

Table 8: 2009 Property Tax Table BRAC Region

County	Tax Rate in Dollars
Bladen	.74
Cumberland	.766
Harnett	.725
Hoke	.70
Lee	.75
Montgomery	.62
Moore	.465
Richmond	.81
Robeson	.80
Scotland	1.02
Sampson	.845

Table 9. Harnett County Population by Town

Town	Population
Angier	13,419
Coats	1,845
Dunn	9,196
Erwin	4,537
Lillington	2,915

Source: Harnett County Economic Development Corporation

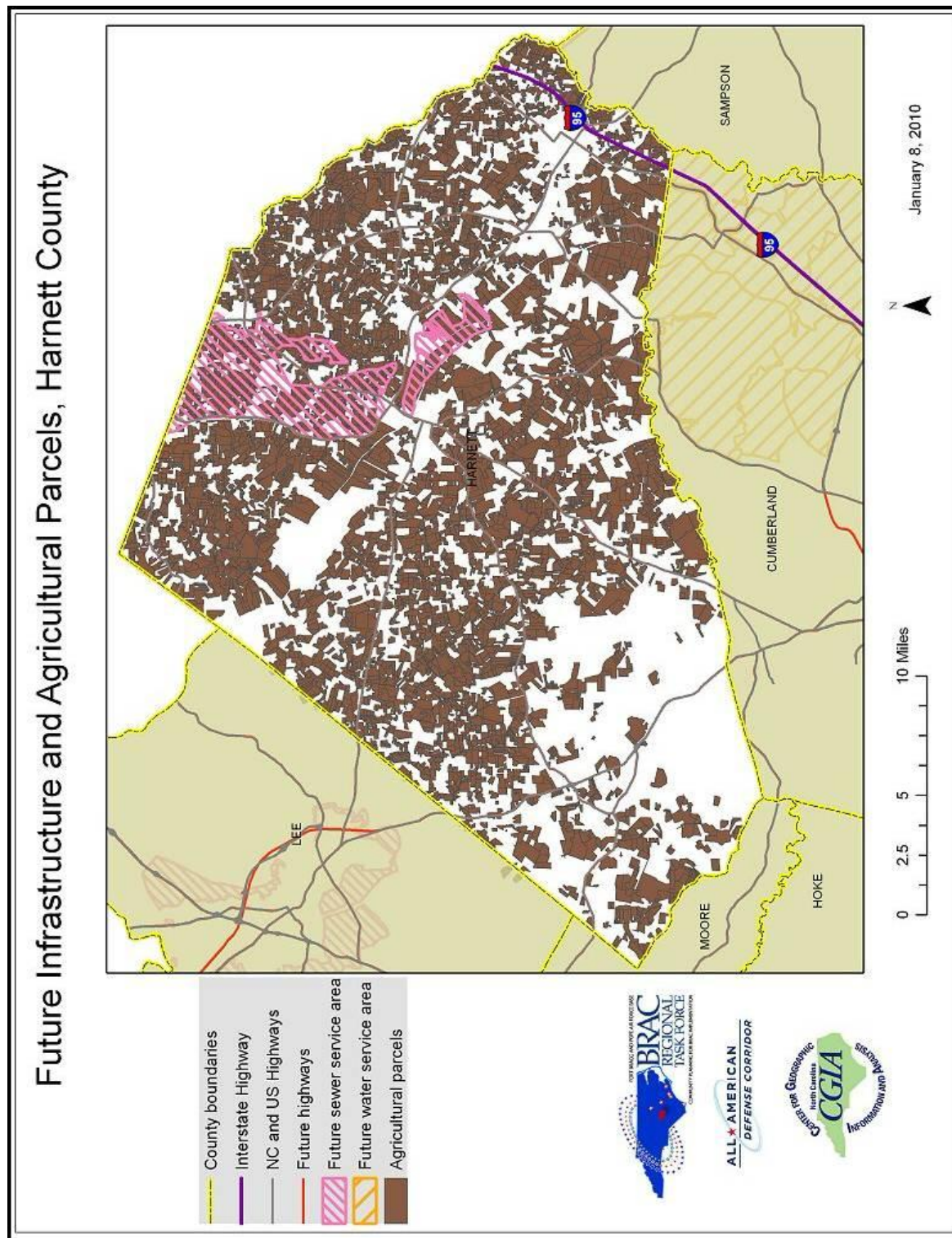


Figure 8. Infrastructure in Harnett County. Sources: N.C. Rural Economic Development Center, CGIA, and N.C. Department of Transportation

Farmland Preservation Options

Existing Farmland Protection Tools

Harnett County has a Voluntary Agricultural District (VAD) ordinance that was adopted by the Harnett County Board of Commissioners in December 2007. This created a Voluntary Agricultural District Board, which implements and maintains the ordinance.

The VAD is denoted as land where the current land use is agricultural production. The continuation of this land use is promoted and encouraged while providing awareness and some limited protections for agricultural activities. Landowners in the VAD program receive signage designating that their land is enrolled in the VAD program informing residents and others that the landowners are committed to the protection of the agricultural way of life in Harnett County.

Persons buying land in areas that surround VADs do so with the knowledge that an agricultural operation exists within one mile of the property that they wish to purchase.

Buyers of land within one mile of a VAD property should be notified that an agricultural operation exists in the area. This information is available through county agencies including the Tax Office, Geographical Information Services, Register of Deeds, and Planning Department. Members of the Harnett County VAD are landowners with land that qualifies for the present-use taxation program and whose land is located in an unincorporated area of the county. Landowners enrolled in the program must follow a USDA-NRCS Conservation Plan if highly erodible land exists on the property. Members also voluntarily enroll with the intention to prohibit nonfarm use of the land under this program for a period of 10 years from the date certified. If landowners wish to withdraw from the program at any time, they may do so in writing with no repercussions.

There were over 10,000 acres enrolled in the Harnett County VAD program in January 2010 according to Gary L. Pierce, extension agent at the N.C. Cooperative Extension Harnett County Center. Efforts are made continuously to educate landowners as to the advantages of enrollment and as to the provisions that the VAD can afford landowners.

At the county and city level, planning and zoning are important farmland protection tools. When a local area strives to sustain its agricultural economy and protect farmland, these objectives should be reflected in the planning and zoning process. The most commonly used tools are highlighted below.

Comprehensive plans, also known as master or general plans, allow communities to create a long-term vision for their future. They outline local government policies, objectives and guidelines regarding development. Typically, they identify areas best suited for a variety of land uses, including agriculture, forestry, residential, commercial, industrial and recreational activities. It is proposed that the Harnett County Working

Lands Protection Plan will serve as a primary component of these comprehensive planning opportunities.

The community mainly uses zoning, along with water, sewer and transportation plans, to implement its comprehensive plan. Legally, all zoning requirements must be in accordance with a comprehensive plan. Zoning controls usually function at the smallest level of government. Zoning ordinances segment portions of counties, cities and towns into areas devoted to specific land uses. They also establish standards and densities for development (Harnett County Zoning District and Regulations).

Zoning is used as a form of farmland protection in Harnett County. For instance, maintaining a lower density of development in an area may be beneficial to farming. Fewer neighbors mean fewer potential conflicts. Local governments can reduce the density of development in two ways: by increasing the minimum lot size or by reducing density without requiring large lots that may prove to be “too small to farm and too big to mow.”

Zoning ordinances, lot -size requirements, and road specifications may affect agriculture immensely and should be reviewed carefully. According to North Carolina law, counties do not have the right to regulate bona fide farms or forestry activities, and they are exempt from county zoning regulations as long as bona fide farming or forestry activities are current and within state guidelines (N.C. Gen. Stat. § 153A-452 (2006)). Some agritourism activities do require county regulation permits that include but are not limited to building permits. Some of the Land Regulatory Use Programs in Harnett County are as follows: Subdivision Regulations, Mobile Home Park Ordinance, Water Supply Watershed Regulations, Zoning Ordinance, Historic Preservation Ordinance, and Flood Damage Prevention Ordinance (Harnett County Planning and Zoning Department).

Harnett County has developed a Compatibility Design Concept to protect agricultural lands and utilize the smart growth concepts with its planning. The outline of this document, located in Appendix A, explains the concept in detail (Appendix A: Harnett County Planning Department, 2010).

A summary of the tools that exist and are associated with zoning as well as their suggested utility are briefly described below. Many but not all of these are currently used in Harnett County. Figure 9 illustrates the existing Harnett County Countywide Zoning Plan currently in place.

Agricultural Protection Zoning stabilizes the agricultural land base by keeping large tracts of land relatively free of non-farm development.

Sliding Scale Zoning uses a scale to determine the number of lots that potentially could be developed in an area.

Cluster Zoning ordinances allow or require houses to be grouped close together on small lots to protect open land.

Large-Lot Zoning is not considered a farmland protection technique. In fact, it may encourage the premature conversion of farmland since it often results in the purchase of more residential acreage than homebuilders actually want or need.

Performance Standards can minimize the impact of development on farming. They may be used to steer development away from prime agricultural soils and existing farm operations.

Overlay Districts generally regulate how farmland is developed and not whether farmland is developed.

Subdivision Regulations address whether specific uses are permitted. Buffers will occur adjacent to active farm operations.

Mitigation Techniques refers to a “no net loss” approach to farmland protection.

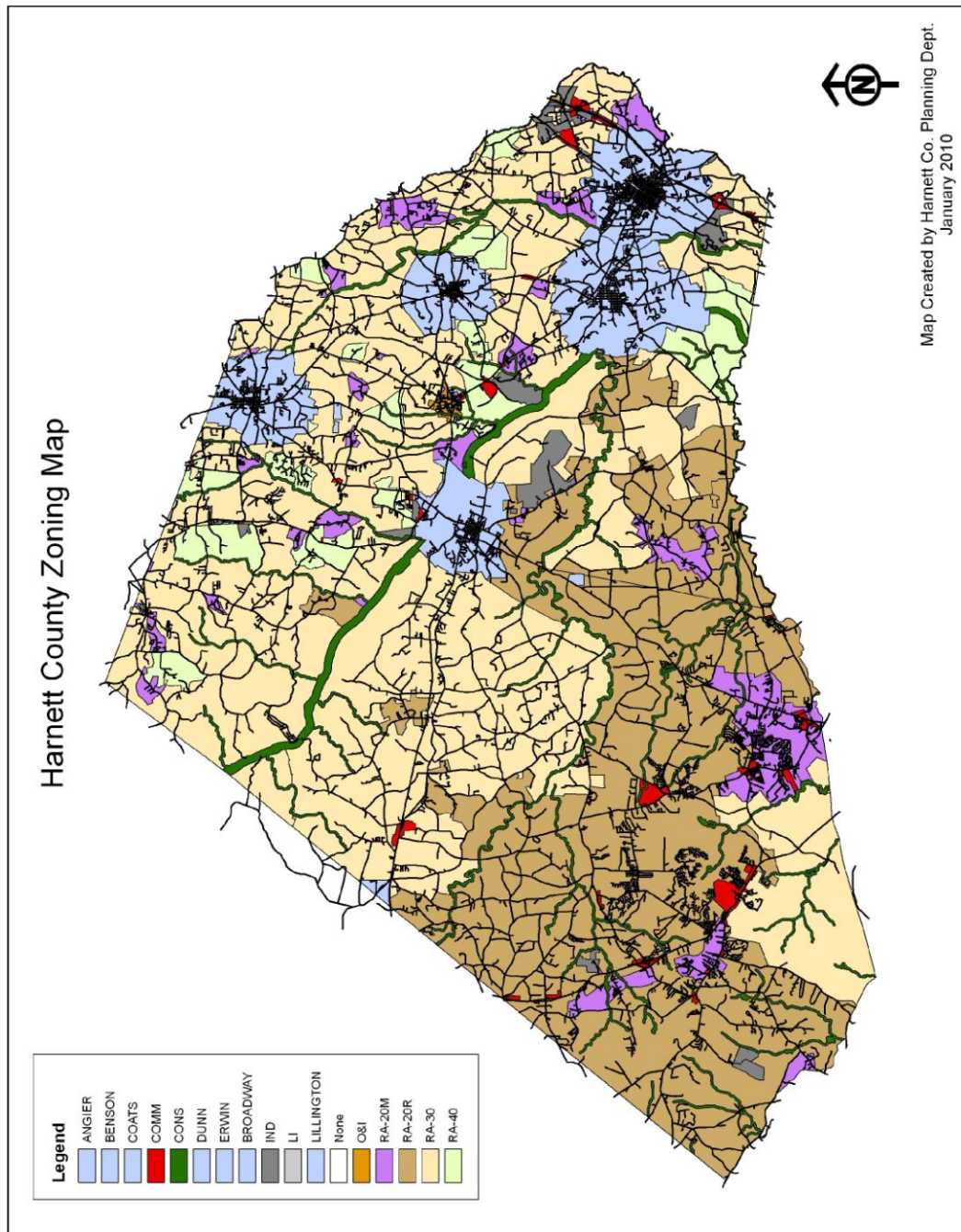


Figure 9. Harnett County Zoning. Source: Harnett County Planning Department 2010

Specific Farmland Protection Tools and Techniques

Voluntary Agricultural Districts

In 1985, the North Carolina General Assembly, through the Farmland Preservation Enabling Act, set forth the concept of “voluntary agricultural districts” as an effective and politically viable way to protect North Carolina farmland. Voluntary Agricultural Districts (VADs) form partnerships between farmers, county commissioners, and land-use planners in order to promote and protect agriculture as an integral part of the county.

More than half of North Carolina’s 100 counties have passed ordinances establishing VADs since 1985 and in doing so, commissioners appoint a local board to oversee the program. This board determines eligibility and guidelines for enrollment specific to each county. The Harnett County Voluntary Farmland Preservation Program Ordinance states that its purpose is to provide the following benefits to farmers and county residents:

- The program preserves and maintains agricultural areas within the county.
- The program informs non-farming neighbors and potential land purchasers that the participating farm may emit noise, dust, and smells. This feature may help avoid conflicts between neighbors and potential nuisance claims.
- The program gives the farming community a better voice in Harnett County policy affecting farmland.
- The farmer participation in the program is voluntary, and the farmer may terminate his/her participation at any time.
- The program requires the Harnett County Commissioners to use farmland “as a last resort” if they are attempting to condemn county lands.
- The program would provide green space and natural resources as the county’s population and development expands.
- The program maintains opportunities to produce locally grown food and fiber.

A VAD is initiated when interested landowners submit a proposal to the Harnett County Agricultural Advisory Board. The VAD shall contain a minimum of 5 acres for horticultural use, 10 acres of agricultural use, and 20 acres for forestry use. This includes leased and/or rented land (Farmland Information Center Farmland Protection Toolbox, February 2008).

Enhanced Voluntary Agricultural Districts

Authorized in 2005, Enhanced Voluntary Agriculture Districts (EVADs) create a new category that offers landowners an additional tier of benefits if they are willing to waive their right to withdraw from the VAD program at any time. These additional benefits include:

- Enrolled farms have lower cost-share requirements for N.C. Agricultural Conservation Cost Share funds.
- Counties and cities may hold all utility assessments in abeyance for any enrolled farms that choose not to connect to the utility lines.
- State and local agencies are encouraged to tie additional future benefits and funding priority to participants in the EVAD, given their commitment to maintain their farms.
- Municipalities are explicitly authorized to adopt their own VAD ordinances, including the EVAD option.
- Cities are authorized to amend their zoning ordinances to provide greater flexibility and stability to farming operations. This can be particularly important to farms that are newly included within expanded extraterritorial jurisdiction lines (Alamance County Farmland Protection Plan, October 2007).

Purchase of Development Rights

In general, landowners possess a variety of rights to their property, including the rights to use water resources, harvest timber or develop the property consistent with local regulations. Some or all of these rights can be transferred or sold to another person. Purchase of Development Rights (PDR) programs, also known as Purchase of Agricultural Conservation Easements (PACE), enable landowners to voluntarily separate and sell their right to develop land from their other property rights. Participating farmers are typically offered the difference between the restricted value of the land and the fair market value of the land. A permanent conservation easement is recorded in the land records binding all future owners. The land remains in private ownership and on the tax rolls.

Local PDR programs can prevent development that would effectively eliminate the future possibility of farming in an area. Selling an easement allows farmers to cash in a percentage of the equity in their land, thus creating a financially competitive alternative to development. Agricultural producers often use PDR program funds to buy and/or improve land, buildings, equipment, retire debt and increase viability of their operation. The reinvestment of PDR funds in equipment, livestock and other farm inputs may stimulate local agricultural economies (Alamance County Farmland Protection Plan, October 2007).

North Carolina Agricultural Conservation Easements

The conservation easement is the legal instrument that protects the land for agriculture over time. It is a voluntary deed restriction that landowners place over their own land. Ownership is maintained and the land may be sold or passed to heirs; however, future owners must abide by the easement. Most conservation easements are permanent. The farmland owner retains all other rights of ownership and can continue to farm the land as he or she did before. The land remains private and on the tax rolls.

Because agriculture is always evolving, agricultural conservation easements must be flexible and tailored to meet its ever-changing conditions. Generally, these easements:

- Extinguish virtually all non-farm development rights (i.e., the right to build residential or non-agricultural structures);
- Limit future uses of the land that degrade the agricultural value or productivity of the land;
- Encourage the business of farming;
- Permit the construction of new farm buildings and farm employee housing;
- Do not require public access.

Landowners in North Carolina must find a government entity, such as a county, Soil and Water Conservation District or a conservation organization, such as a land trust, to agree to monitor the property forever to be sure that the terms of the easement are fulfilled in perpetuity. Landowners who donate an agricultural conservation easement may receive a federal income tax deduction, as well as a reduction in the value of the property for estate tax purposes. North Carolina has a state conservation tax credit for donations of property or easements for conservation purposes.

The effectiveness of PDR programs depends on how well communities address several key issues. These include deciding what kind of farmland to protect, which geographical areas to focus on and how to set priorities; what restrictions to put on the use of the land, how much to pay for easements how to raise purchase funds; how to administer PDR programs and how to monitor and enforce easements.

Program Costs—Most PDR programs (including North Carolina's) require a local dollar match from the landowners, a land trust, county or municipal government, or another source for the implementation of PDR projects. If a county is to implement its own PDR program, as is the intent in Harnett County, the county government must provide funding to leverage additional state and federal dollars (Alamance County Farmland Protection Plan, October 2007). The following outlines several ways local communities can finance their PDR programs. There are, of course, many other innovative ways to fund land preservation.

Bonds--In the past decade, many North Carolina communities have recognized that farmland conservation is a long-term investment. While bond referendums have been successful in other states, no North Carolina county has bonded directly for farmland

protection. Wake County issued bonds for watershed protection with a portion being used for farms. Orange County has issued bonds for public recreation facilities and has matched the amount with a general appropriation for farmland protection.

General Revenues--Other communities have set aside annual appropriations to pay for farmland protection projects by using current revenues. The counties of Buncombe, Orange, Currituck, Rowan, and Forsyth have all used general appropriations to fund conservation easements.

Purchase of Developmental Rights (PDR) Grants--In 1985, the North Carolina Department of Agricultural and Consumer Services established an Agricultural Development and Farmland Preservation Trust (ADFPTF) to act as the primary statewide purchaser of agricultural conservation easements.

From 1998 to 2002, the ADFPTF gave out \$2.4 million in five grants cycles, protecting 4,412 acres on 33 farms. The General Assembly has only appropriated minimal funding since House Bill 607 in 2005 revived the fund with \$8 million. This program is now guided by a 19 member advisory committee providing recommendations to the commissioner of agriculture. Although funding was allocated until the 2007 budget, it has a particular interest in supporting local VAD programs. In 2006, five pilot programs promoting local partnerships, conservation easements, and the development of VADs received grants.

Additionally, the Clean Water Management Trust Fund issues grants to local governments, state agencies, and conservation nonprofits to purchase conservation easements on farms that serve as riparian buffers to priority waterways. The North Carolina Tobacco Trust Fund Commission has provided funding to land trusts to purchase development rights on tobacco farms in transition.

Public/Private Partnerships

Some communities have successfully used partnerships with private organizations to facilitate their PDR programs. In some areas, local land trusts, once formed primarily by conservationists concerned about vanishing habitat and open space, have formed to tackle the challenges of preserving farmland. It is possible for a private land trust to have the needed easement settlement and administration expertise that communities may lack.

For example, a land trust may play a key role in assembling PDR applications; holding, monitoring, and enforcing easements; managing the PDR program; or providing a portion of the local match as in-kind credit or in cash. In addition, land trust involvement may increase the incentive for farmer participation since landowners who donate an easement or a portion of their property to a nonprofit land trust may receive a federal tax deduction, thus offsetting some of their capital gains tax liability.

Stewardship and Monitoring

When landowners sell or donate an agricultural conservation easement to the state, a municipality or a qualified nonprofit conservation organization, that agency or organization then 'holds' the easement. The holder of an easement is obligated to monitor the land involved and uphold and enforce the terms of the agreement.

Known as stewardship, the process of holding and maintaining easements is an important consideration to any PDR program. Good stewardship will help ensure the perpetual nature of the easement. The entity holding the easement should set up a system for administering, monitoring and enforcing the easement terms. That involves creating baseline documentation, maintaining a good working relationship with the landowner, monitoring the property and, if needed, addressing violations (Alamance County Farmland Protection Plan, October 2007).

Transfer of Development Rights

Transfer of development rights (TDR) programs, also known as density exchange programs, allow landowners to transfer the right to develop one parcel of land to a different parcel of land. (By contrast, cluster zoning usually shifts density within a parcel.) While the TDR technique holds promise in theory, it has not been utilized in North Carolina due to the complexity of its administration and its unproven track record. However, Orange County is currently in the third and final phase of a study to develop a TDR program (Alamance County Farmland Protection Plan, October 2007).

TDR programs can protect farmland by shifting development from agricultural areas to areas planned for growth. It is important to recognize that TDR programs do not reduce the number of building rights. TDR programs simply reallocate them geographically.

Since TDR programs are based on having a definable right to development, any area seeking to implement such a program must have a means, preferably statutory, to allocate such rights. Typically this is done through zoned density and in areas without zoning, and may be achieved through an assignment of engineering capacity in accordance with subdivision regulations. Without a means to assign such development rights, a TDR program simply cannot be implemented.

The TDR legislation itself provides the legal framework under which development rights are transferred from one lot, parcel or area of land in any sending district to another lot, parcel, or area of land in one or more receiving districts. To implement TDR, receiving and sending districts are designated and mapped in accordance with a comprehensive plan. Sending districts may include agricultural land, and receiving districts must have the infrastructure needed to support increased development. Development rights are documented as conservation easements that are enforceable by the town or other designated entity. They may be bought or sold by the municipality for deposit in a development rights bank.

Flexibility is important throughout the TDR process. For TDR to work, communities must build consensus on its use as a way to protect resources and direct future growth. A market must exist for both the development rights (either in the private sector or via a community development rights bank) and the higher density development that will result.

Lease of Development Rights

As recommended by the 2008 Joint Land Use Study (JLUS) that was conducted by the Regional Land Use Advisory Council (RLUAC) and Ft. Bragg, the county should consider adoption of the Cumberland County lease of development rights ordinance model. The model is designed to encourage property owners in the JLUS identified “critically important” or “important” land along military boundaries to enter into a lease of development rights with the county. Property owners lease their development rights to the county for a specified number of years. The county, in return, provides an annual payment to the property owner for the leased development rights equivalent to the county property taxes on the land. Property owners can opt out of the agreement at any time but must give one year’s notice. This gives notice for agencies and groups to organize purchase of the property if possible. This program is necessary for the county to preserve “critically important” or “important” lands in the county’s jurisdiction. The county and the landowners who opt to participate in this program should consult with their attorneys and tax advisors as they enter this agreement. A sample of an agreement is attached in Appendix B of this document.

Agricultural Tax Relief

Tax relief is an important issue for farmers. Farms need land to operate, and property taxes on farmland are a significant expense. Taxes on farm buildings are often substantial as well. Farmers often say, “Cows don’t go to school,” which reflects the concept that taxes on agricultural land should be proportionate to its demand on municipal services and its ability to generate income. As the 2006 Alamance County Cost of Community Services study defined, farmland provides more in property tax revenues than it requires in public services; thus keeping land in production may help control the cost of community services (Mitch Renkow, Department of Agriculture Resource Economics, NCSU).

Since overtaxed agricultural land may be more susceptible to conversion to non-agricultural uses, tax relief measures may also be considered a farmland protection tool. The expense of property taxes may discourage farmers from buying land and can force existing farmers to sell. Farmers’ savings from property tax relief programs can be significant and may make the difference between staying in business and selling out. Several federal, state, and local programs now exist to offer various kinds of property tax relief for farmers.

Property – Present-Use Value assessment allows for agricultural and forested land to be taxed at its farming value, rather than market value for development. When land is no longer in agricultural production, the owner is subject to a rollback penalty of the deferred taxes for the year of disqualification and the three preceding years, with interest. Owners of agricultural land need to apply to the County tax assessor to receive this assessment. Farmers are entitled to a state income tax credit equal to the amount of property tax paid on farm machinery, attachments and repair parts.

Sales – Commercial farms can receive an exemption for sales tax on items used in their farm operations, such as farm machinery, containers, tobacco drying equipment, grain storage facilities, fuel, potting soil, feed, seed and fertilizers. Farmers must obtain an exemption number from the North Carolina Department of Revenue.

Estate – The donation or sale of an agricultural conservation easement usually reduces the value of land for estate tax purposes. The Internal Revenue Code also contains certain valuation exemptions, which can reduce estate taxes for working farms.

Income – Local jurisdictions may use tax policies to stimulate investment in agricultural sectors. In other states, this has included providing incentives such as a reduction in property taxes for participants in VAD programs or the elimination of business taxes for value-added processing facilities (Alamance County Farmland Protection Plan, October 2007).

Right-To Farm Laws

The continued development of agricultural areas has increased the potential for conflicts between farmers and their neighbors. North Carolina implemented right-to-farm laws to protect farm and forestry operations from being declared a nuisance as long as they have been in operation for at least one year. They are, however, not protected if there is evidence of negligence or improper operation. Other state protections include the notice of proximity provision which is provided as a benefit for participants in a VAD program and the pre-litigation mediation of farm nuisance disputes. With state authorization, counties have the power to adopt stronger right-to-farm laws (Alamance County Farmland Protection Plan, October 2007).

Definition of a Farm

The State of North Carolina (N.C. Gen. Stat. 153A-340(2006) defines bona fide farm purposes to include: the production and activities relating or incidental to the production of crops, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agricultural products as defined in G.S. 106.581.1 having a domestic or foreign market.

Swine production in North Carolina is treated as a special case, and local governments may regulate swine facilities designed to handle 600,000 pounds of livestock or more annually.

Agricultural land is defined as: land that is part of a farm unit that is actively engaged in the commercial production or growing of crops, plants or animals under a sound management program.

Horticultural land is defined as: Land that is engaged in the commercial production or growing of fruits or vegetables or nursery or floral production.

N.C. Gen. Stat. 105-277.3 (2006) provides further specifics for the three classes of farmland. Agricultural and horticultural land must produce an average gross income of at least \$1,000 and be under a sound management program. Forestland must be following a written sound forest management plan for the production and sale of forest products. Agricultural land must include 10 acres, forestland must include 20 acres, and horticultural land must include five acres in production.

Farmland Assessments and Analysis

Surveys and interviews were conducted on three target audiences in Harnett County in an attempt to best assess the challenges and opportunities that agriculture and the future of the industry must consider. Harnett County, as documented earlier in this plan, faces a number of challenges and opportunities as the eighth fastest growing county in the state. The anticipated growth around Fort Bragg and other metropolitan areas in relative proximity to the county make it imperative for local officials to recognize the importance of agriculture to the county's economy and quality of life. Many of the same factors influencing the county as a whole directly impact agriculture and the preservation of farm families.

Harnett County Producer Surveys

Through information gathered from Harnett County agricultural producers and forest landowners, recommendations can be made to help guide local officials on how best to implement programs and policies that will afford landowners the opportunity to remain in farming or forest operations.

Harnett County farmers and forest landowners were surveyed and interviewed with respondents representing a wide variety of communities and towns in Harnett County: Hectors Creek, Mamers, Barbecue, Johnsonville, Buies Creek, Chalybate Springs, Dunn, Anderson Creek, Flatwood, Lillington, Bunnlevel, Coats, Erwin, and North Harnett.

Survey and interview respondents represented 19,148 harvested acres of land in Harnett County or around 30 percent of the harvested acreage in the county. Additionally, farmers responding stated that they additionally farmed 8,635 acres outside of Harnett County. Respondents represented about 78 percent or 2,966 acres that is currently enrolled in the Harnett County Voluntary Agricultural District Program.

The major crops grown by respondents were corn, hay, tobacco, cotton, soybeans, wheat/small grains and timber. The major livestock produced by respondents in 2008 were hogs, broilers, beef cattle, horses, range chickens and meat goats.

Data indicated that producers sell their products in a variety of ways. The vast majority of respondents (71.4 percent) sell through auction, to a broker, dealer or third party. Other markets include cooperatives or direct sales to consumers, which include farm stands, U-pick, internet, mail order, or community supported agriculture (Figure 10).

Data also indicated that 56.7 percent of the respondents receive up to 25 percent of their income from farming, 23.3 percent receive from 25 percent to 50 percent while 20 percent receive 50 percent to 100 percent of their income from farming (Figure 11). This data indicates that less than a quarter of the farmers responding considered themselves full-time farmers.

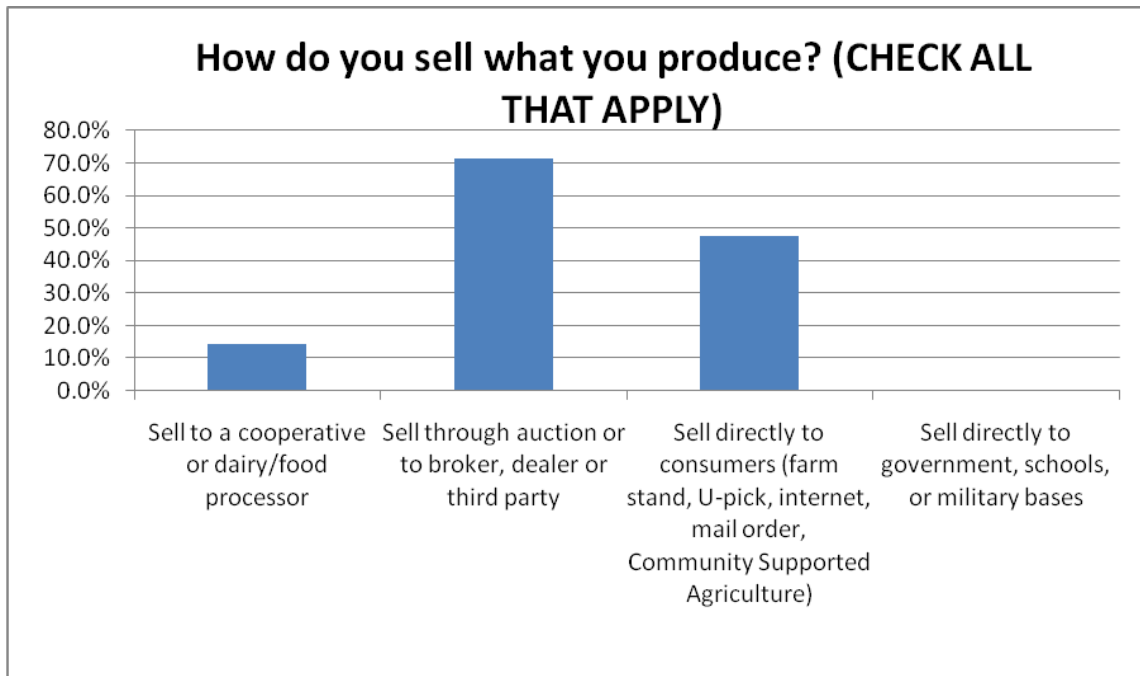


Figure 10. BRAC RTF Survey of Producers

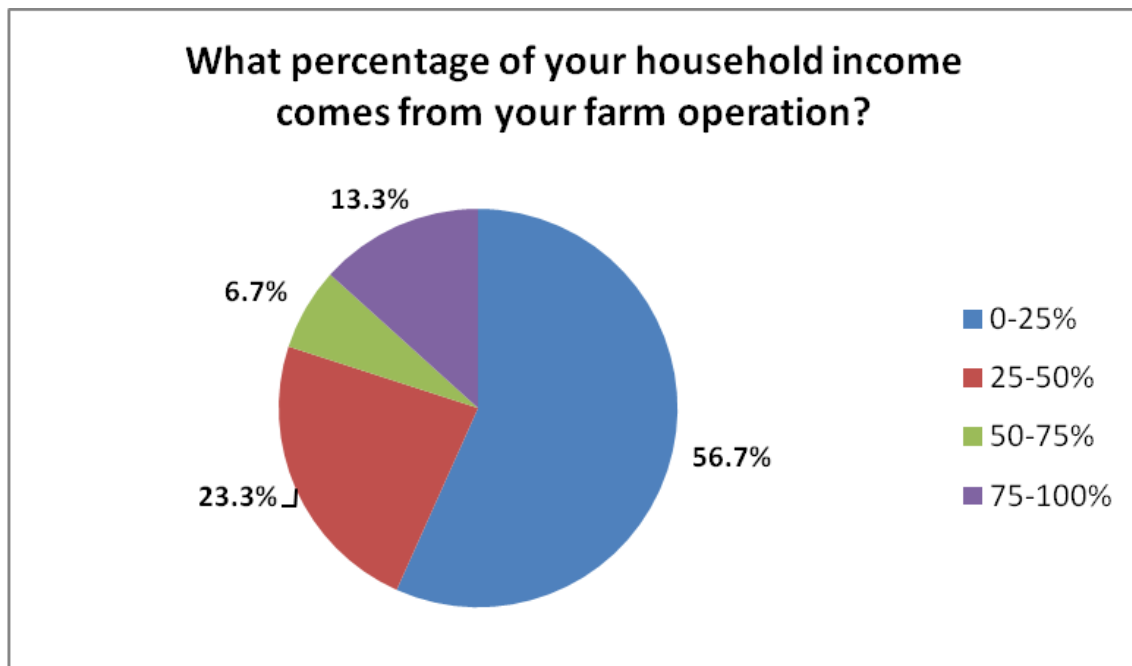


Figure 11. BRAC RTF Survey of Producers

When asked if they were aware of the Voluntary Agricultural District Program in Harnett County, 88 percent of the responding producers acknowledged awareness of the program. However, 63.3 percent of the producers indicated they were not aware of North Carolina's Enhanced Voluntary Agricultural District Program. Approximately 67 percent are aware of the present-use value assessment while 63 percent are not aware of the North Carolina historic preservation tax credit. Also, 80 percent of the producers are not aware of Harnett County's Farmland Protection Initiative (Working Lands Protection Plan) and almost eighty-seven percent are not aware of the USDA's renewable energy systems and improvements grants and loans.

When farmers were asked whether they had experienced issues or complaints related to neighbors, only 31 percent responded that issues with neighbors had occurred. The primary issues were associated with animal operations (odors), boundary or trespassing conflicts, and dumping and littering. Other than the complaints associated with animal operations, the complaints were not lodged against the farmer but were issues where neighbors were either trespassing or dumping on farmers' properties.

Data also indicated that 76.7 percent of the respondents intend to farm for an additional 10 to 20 years. Although there is expressed knowledge of the VAD program in Harnett County, there is a need to encourage enrollment to avert some of the nuisance issues reported and to protect properties that are anticipated to remain in agriculture for an additional decade longer (Figure 12).

This is only substantiated by additional data that indicated 75 percent of producers planned to transfer their farmland to family for continued farming operations (Figure 13). Along these same lines 82 percent of respondents indicated that information related to farm transition and estate planning was of utmost importance to the smooth transition of the farm family. Other educational opportunities that were identified were youth education about agriculture. Producers recognized that encouraging youth to undertake agriculture as a career is crucial to the future of agriculture.

When asked what challenges producers face to remain viable in agriculture, 51.6 percent of the respondents indicated increased farm profitability was the key to keeping their family farms. Figure 14 designates the primary considerations denoted by Harnett County producers for continued farm viability. Other opportunities recognized to be of interest when asked were farmland preservation and government support systems, disaster relief, conservation cost share, and right to farm laws. Interestingly enough, the majority of these considerations would be addressed through policy and program deliberations. Additional challenges were noted as environmental restrictions and regulations. A need was expressed for educational programs to assist farmers in meeting the requirements these regulations impose and to look at new opportunities through environmental changes related to carbon credits or solar farming.

Producers responding to interviews and surveys adequately represented the industry. Over 62 percent responding designated themselves as part-time farmers and 46 percent noted that they devote 0 percent to 20 percent of their time to farming (Figure 15). This

shift from full-time to part-time farmers continues and may result in changes in the near future for the state of agricultural production.

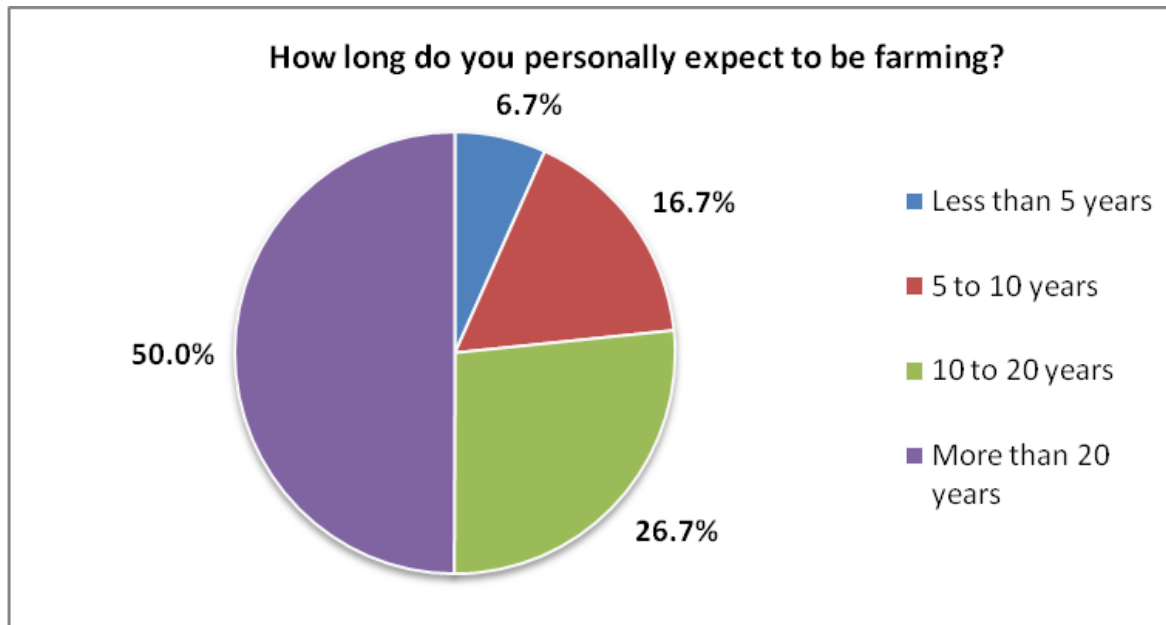


Figure 12. BRAC RTF Survey of Producers

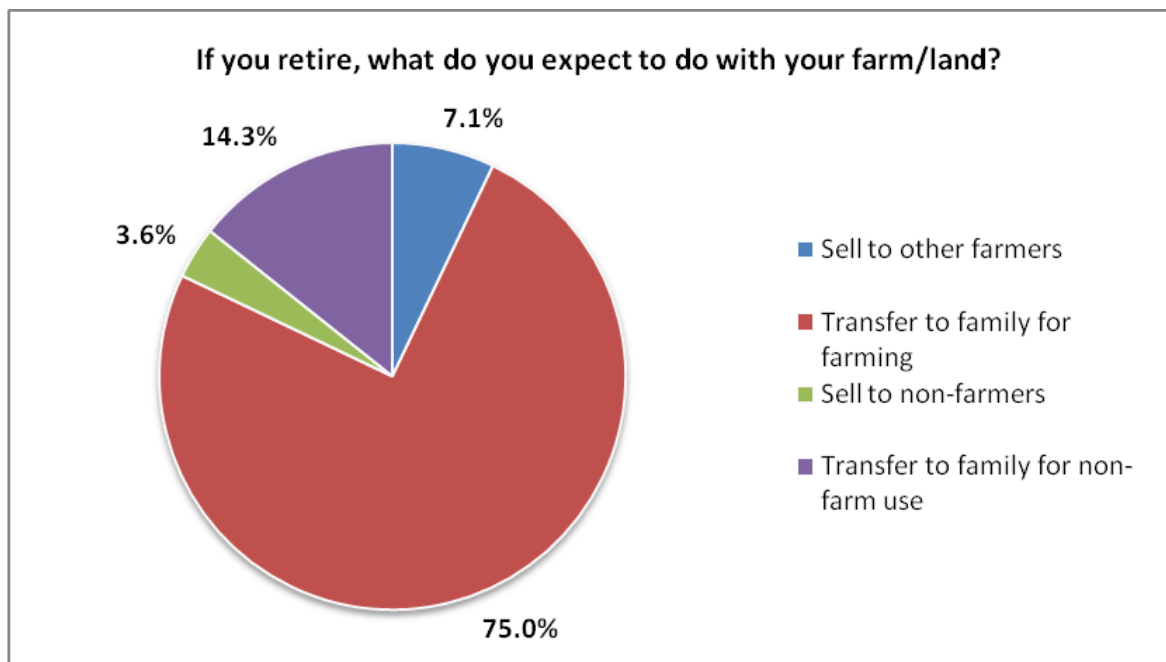


Figure 13. BRAC RTF Survey of Producers

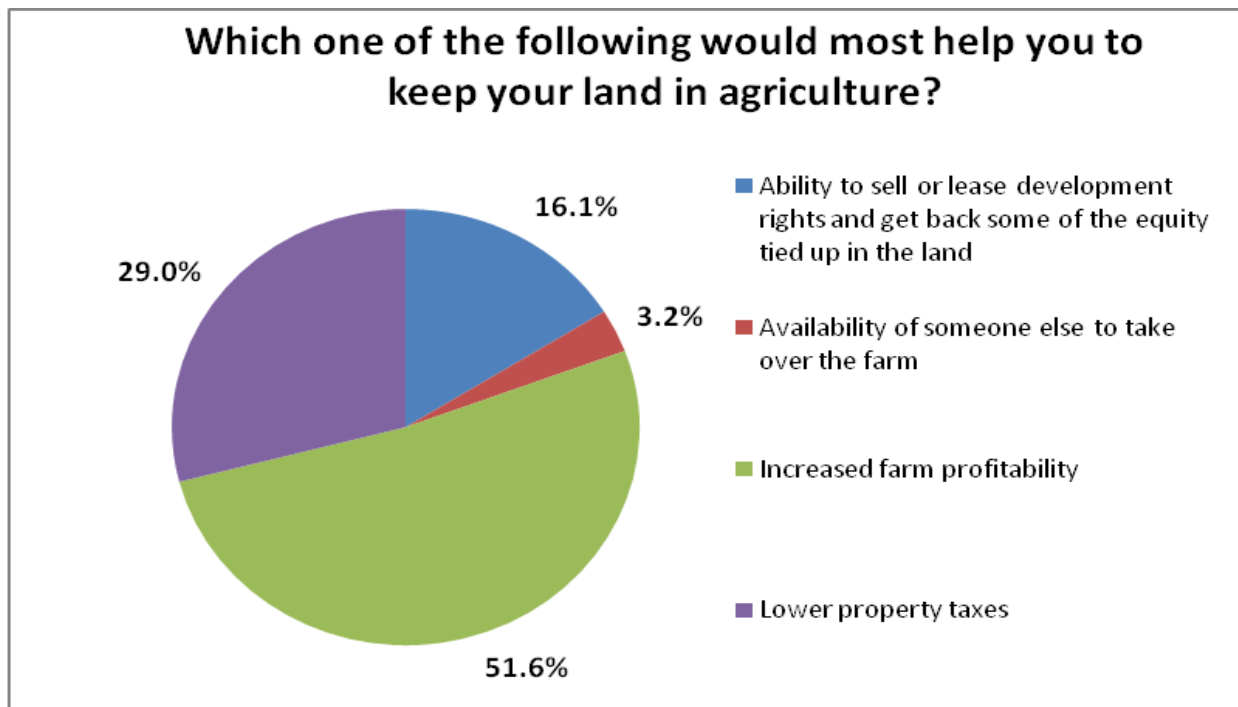


Figure 14. BRAC RTF Survey of Producers

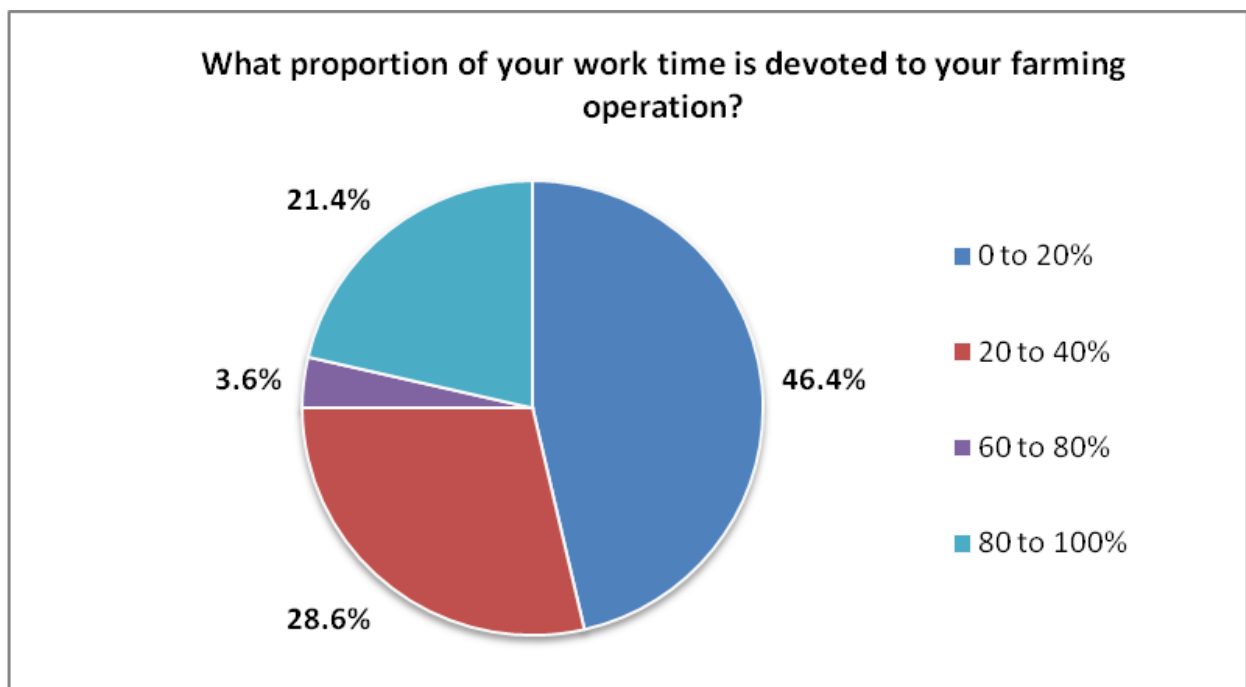


Figure 15. BRAC RTF Survey of Producers

Local government support of agriculture was rated as very supportive to somewhat supportive across a range of issues. Producers rated local governments by the following percentages:

- 87 percent of the producers felt local government was somewhat supportive when questioned about county planning/zoning regulations;
- 95.7 percent felt local government was somewhat to very supportive in provisions of services;
- 87.5 percent felt local government was somewhat supportive in keeping taxes reasonable;
- 87.5 percent felt local government was somewhat supportive in protecting right-to-farm laws
- 85.7 percent felt local government is supportive of loans and grants for farmers.

The Harnett County producers seem to be very satisfied with local government support for agriculture and believe that local government officials understand agriculture's importance to the county.

Expansion of operations was noted by producers as being an expectation in the next five years with additional acreages being sought and new equipment and facilities being needed as well. At present, 81.8 percent of the producers have not had any difficulty in receiving the necessary amount of financing to develop or expand their businesses. Also, 89 percent of producers felt that the financing terms are reasonable. This financing and expansion is occurring while 46.2 percent of the producers reported a decrease in profits over the past five years.

In gathering information on agriculture issues, such as production, regulations, and farm programs, over 50 percent of the producers receive the information from North Carolina Cooperative Extension, U.S. Department of Agriculture, newspapers, magazines and from other farmers. The indication is that other sources are not used as much, which may be due to a lack of organization memberships.

Concerning farmland preservation and support systems, 50 percent of the producers responding felt it was important to have additional loan/grant financing for preservation of farmland. Also, 53 percent felt it important to have additional loan/grant financing for agriculture development; 73.7 percent say that additional right-to-farm protections was important; 56 percent support the ability to sell/lease development rights for cash, and 48 percent felt it is important to have public funding for on-farm environment management. Producer comments such as these denote an opportunity to increase farmland protection and support systems through education of producers by several organizations.

Indications are that 68 percent of the producers need technical assistance and practical training for woodlot management; 61 percent need help or training in nutrient management; 50 percent in environmental management; and 53 percent in conservation

best management. Also, dealing with farm management and taxes, 54.6 percent of the producers feel it is important to have business planning assistance; 65.2 percent need assistance with farm transfer or estate planning, and 54.6 percent felt it was important to pursue tax abatement or incentives for new agribusiness ventures.

While of no surprise, 92.6 percent of Harnett County producers surveyed or interviewed supported local government funding for Farmland Preservation. Preservation of family farms was noted by the vast majority of producers to be of great importance. As profit margins continue to decrease and input costs increase, programs supported through local, state, and federal entities will help to sustain agriculture's viability. The importance of agriculture to the local economy, to facilities such as Fort Bragg from a compatible use perspective, and to prospective homeowners from a quality of life standpoint make the consideration of incentives for farming a viable conversation for the future.

Harnett County Agricultural Business Survey

Agriculture is not just about farmers but is inclusive of businesses that support and service agricultural producers. It was important to investigate the climate of businesses associated with and involved in agriculture as well to determine what the challenges and opportunities more completely are for years to come. Agricultural businesses across Harnett County were surveyed and interviewed to provide an additional perspective to the plan.

One-third of the businesses contacted indicated they had been in operation for more than 20 years. One-third indicated they had been in operation for 10 to 20 years and another third stated that they had been in business for less than five years. Business types represented included forest service and forest product businesses, horticultural businesses, farm and livestock supply, and farm service businesses.

When agribusinesses were asked about changes over the last five years, the majority reported no change or reported gains in market share as evidenced in Figure 16. When agribusiness owners were asked what they expected the future of their market share to be in five years, 80 percent of businesses responding expect to hold their current market share. One hundred percent of the businesses expect to continue adding new product lines for the non-farmers, and 50 percent have added new product lines for farmers. This anticipated growth in service in the future, while attributed to some non-farm growth, still recognizes the continued expectation for expansion of traditional agricultural operations.

When asked to express what agricultural trends business owners noted in Harnett County, 75 percent of the businesses observed an increase in the number of smaller farming operations in the county. Concurrently, 100 percent of businesses indicated having observed a smaller number of large agricultural operations, and 75 percent observed more farmers transitioning to part-time rather than full-time operations. Additionally, during the last five years, 80 percent of the businesses surveyed or

interviewed indicated an increase in customer numbers, and 100 percent of those responding reported increases in sales volume, sales dollar value and profit.

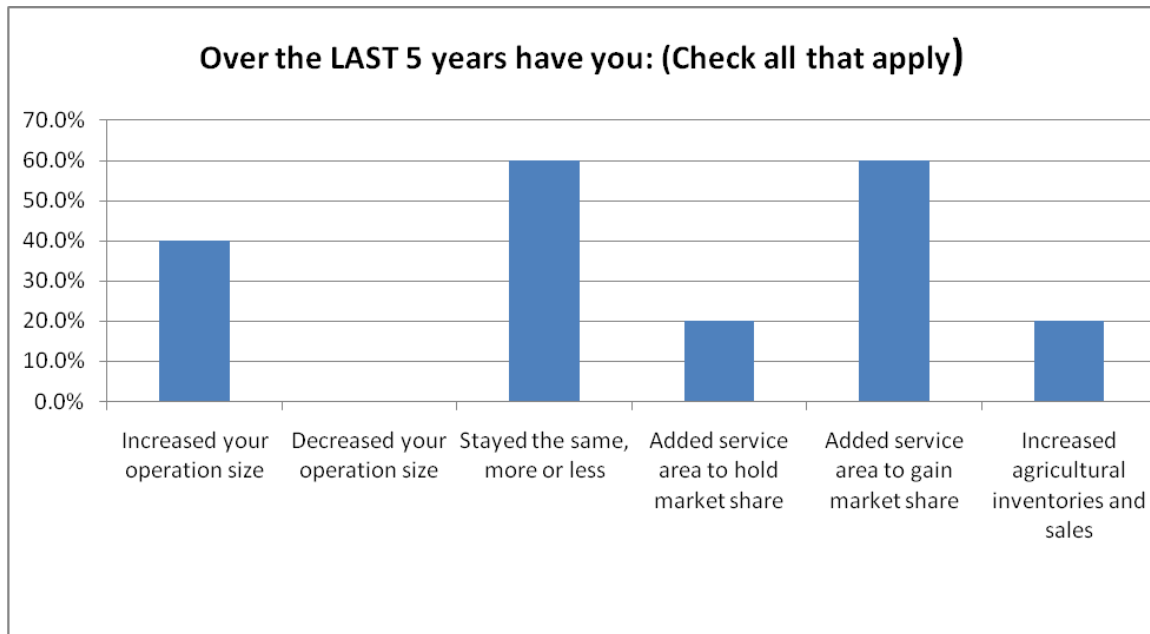


Figure 16. Harnett County BRAC RTF Agricultural Business Survey

The majority of the businesses contacted indicated that farmland preservation and government support systems are very important to the future of agriculture. The need for funding to support education in environmental and energy related areas was noted to be of importance to respondents as well. They also indicated that issues related to the environment and to energy offer unlimited potential for growth and diversification within the industry. Education and incentives are noted to be of interest to those in the agribusiness industry.

Education programs to support the farm were deemed of great importance to over 80 percent of respondents. Education of the consumer and marketing efforts geared to a changing consumer marketplace will be essential to retain growth and continue to gain market share. Among areas noted for educational focus were marketing channel diversification, commodity market education, youth education about agriculture, and consumer confidence. Seventy-five percent of business owners responding felt that it is very important for training in direct marketing, internet website development, regional branding, local product marketing, development of niche business marketing and sales promotions, organizing buyer groups, development of farmer business alliances, and assistance in creating community supported agriculture.

In addition, areas of need for technical education denoted by 75 percent of respondents included woodlot management assistance, agricultural awareness and career training, development of product quality certification, assistance in on-farm bio-security training, abatement for new agribusiness ventures, farm transfer/estate planning and business planning assistance.

Local support for Farmland Preservation is supported by 100 percent of the businesses reporting. Ideas expressed by business respondents to retain and improve agriculture in Harnett County were term conservation easements, more favorable tax treatment, assist farms with resisting cash-now option for development, cost of development that should decrease the value of underdeveloped property, incentives to retain land for agriculture purposes and education for landowners. There is no doubt that a number of these issues noted by agribusinesses in Harnett County are consistent with expressed producer issues as well. Both target audiences acknowledge the need for additional educational efforts for all residents of Harnett County in an effort to increase agricultural awareness and prosperity.

Harnett County Non-Farm Survey

While Harnett County residents primarily reside in rural Harnett County, only a small percentage of these residents engage in agriculture as an occupation. For this reason the perceptions and support of agriculture to these non-farm residents is imperative to ascertain. Non-farm survey respondents included residents of Angier, Buies Creek, Anderson Creek, Bunnlevel, Lillington, Johnsonville, Coats, Mamers, and the Black River Fire District. This distribution is adequate to give a perspective of issues that non-farm residents consider to be important with regard to agriculture in Harnett County.

The demographics of the non-farm survey participants were representative of the county with 58 percent of non-farm respondents aged 25 to 49 years old and 34 percent 50 to 64 years of age. The number of households containing two people was 39 percent and the number containing three people was 27 percent. Also, 57 percent of the respondents had lived in Harnett County for 20 or more years. Of those completing the survey or participating in interviews, 96.6 percent had completed high school, and 62 percent had completed four years of post-secondary education. Also, 71.9 percent work in governmental occupations, 14 percent were publically employed, and 13 percent either privately or self-employed.

Of the respondents, 76.6 percent have never owned or operated a farm or timber operation; however, 63 percent of the respondents had visited a farm within the last year. Less than five percent of respondents had never visited a farm or timber operation (Figure 17).

Based on the past five years, 63 percent of those surveyed believed that agriculture in Harnett County was holding its own as an industry and had potential for future growth (Figure 18).

The survey indicates that 92 percent of those surveyed participated in shopping at fruit and vegetable stands; 68 percent supported U-pick fruit or vegetable operations; 78 percent shopped at stores featuring local vegetables; and 57 percent shopped at stores featuring other local farm products. Data compiled strongly indicated that the majority of non-farm residents responding supported the local agricultural industry in Harnett County.

Seventy-one percent of those non-farm residents surveyed reported having had issue with a farm neighbor in regard to odors related to animal operations. Fifty-one percent had issues related to the application of manure and 66 percent had issues with slow-moving vehicles (Figure 19). Data indicates a challenge that farmers must embrace to remedy these problems without complication for their operations. The benefits of the existing VAD program can help to address these issues and provide some protection for the farmer and the community.

While issues with farm neighbors were recognized, it does appear from data that non-farm respondents were in support of farming operations and recognize the value of these operations not only to the supply of food and fiber but to the quality of life in rural Harnett County. Noted are the respondent views with regard to farming in Harnett County:

- 92 percent believed that farming enhances the scenic beauty of Harnett County.
- 95 percent believed farming preserves needed open space.
- 84 percent found farmers to be good neighbors.
- 81 percent believed farmers are paid too little for their toil.
- 88 percent believed farming is positive for the environment.
- 84 percent believed farmers should receive tax breaks.
- 78 percent support programs to afford loans/ grants for the development of local farm enterprises.
- 91 percent support efforts to encourage continued growth and expansion of farming in Harnett County.

Most striking was the overwhelming support for local government to encourage and protect farms. Ninety-seven percent of the non-farm residents responding felt that Harnett County should take steps to help preserve farmland.

When asked to comment on their thought about farming in Harnett County those responding verbalized their support for:

- Monetary incentives for farmland preservation from local government.
- The need to emphasize and recruit small family-owned and operated farms.
- Education to consumers to support agriculture and the local economy.
- Funding for a farmers' market and pick-your-own operations.

- Encouragement of youth to pursue occupations in agriculture.

Harnett County non-farm residents displayed strong support for agriculture in Harnett County and felt a need to continue to provide options and incentives to keep Harnett County farmers viable.

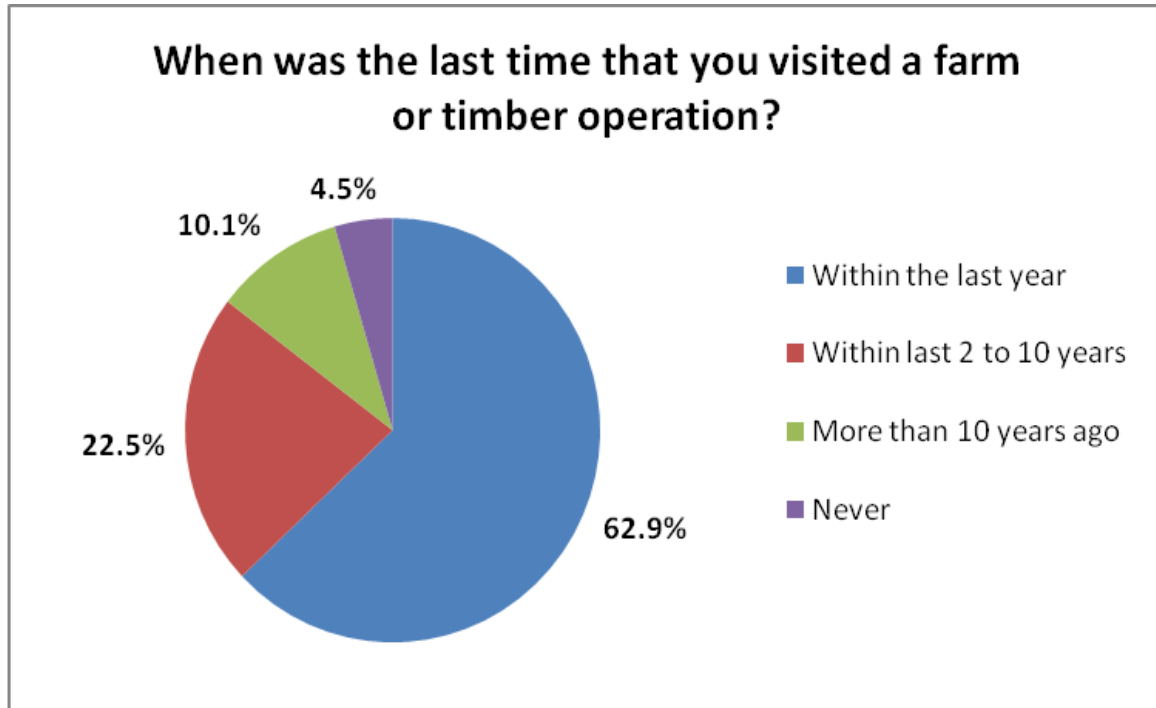


Figure 17. Harnett County BRAC RTF Non-Farm Survey

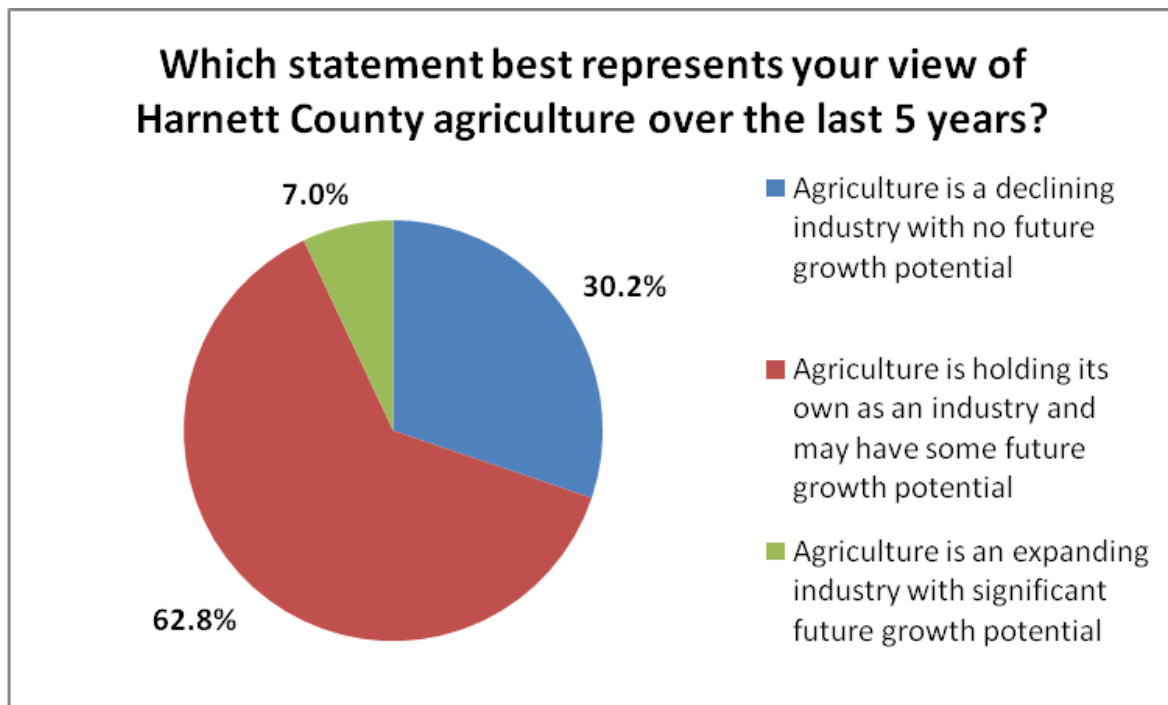


Figure 18. Harnett County BRAC RTF Non-Farm Survey

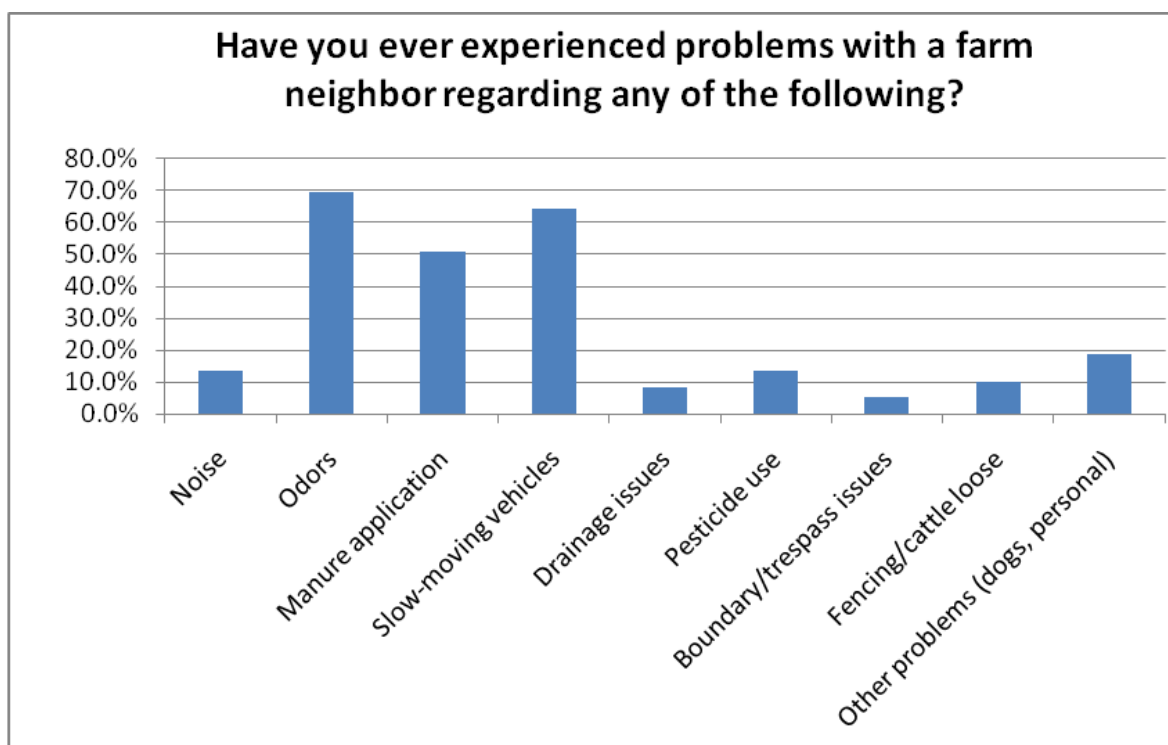


Figure 19. Harnett County BRAC RTF Non-Farm Survey

Challenges and Opportunities for Harnett County

Data analyzed from surveys and interviews conducted of the target audiences (agriculture production, non-farm resident, and agricultural business) revealed numerous challenges and opportunities for agriculture and farmland preservation in Harnett County. To recommend actions, one must strategically address ideas and issues to provide leaders with an avenue to secure a future for agriculture in Harnett County. While recognized as supportive of agriculture, local leaders and residents alike must commit to the importance of agriculture to the fiber of the county's residents and through policies, programs, and promotion embrace the importance of the preservation of the industry.

Challenges

Survey information indicated less than 14 percent of agriculture producers define themselves as full-time. With 86 percent of Harnett County farmers self-defined as part-time, a concern exists should this majority decide to no longer remain engaged in farming. There is additionally expressed concern over the lack of interest from youth to select agriculture as a career path.

The rural and urban interface poses challenges for both farmers and residents and their respective operations and behaviors. Issues related to animal operations such as odors, manure applications, and slow-moving vehicles pose challenges to farming operations and to those selecting a rural residential setting. Concurrently, behaviors associated with rural population increases and activities, such as boundary/trespassing disputes as well as dumping and littering, present a problem for large rural land holders such as farmers.

Another challenge is the lack of resolution to landowner and resident complaints. This is a great concern to all parties as more people move into the county and desire to live in the rural areas.

Regulations from local, state and national levels are a challenge for agricultural producers and businesses. As land continues to become recognized as a finite resource, it limits the flexibility and opportunity for diversification for farmers into animal production and other agronomic options due to the environmental regulations and concerns of the growing population sentiment.

Water use restrictions, due to the recent droughts and the continued increase in population, becomes more critical each year. There will be more competition for water in Harnett County based on the projected increase in population and the need for water by the agriculture operations and agribusinesses.

Opportunities

Even in a time of economic down-turn, a number of opportunities are recognized for farming operations located in Harnett County, and these are recognized by all respondent groups.

The majority of respondents in Harnett County support government funding for Farmland Preservation. Many understand the need to maintain prime farmland for production agriculture. Competition for prime farmland by developers and agriculture producers continues to rise. The majority of residents of Harnett County participating in the development of this Working Lands Protection Plan recognizes, supports, and wishes to retain the benefits that agriculture affords the county and its residents. Citizenry support of governmental action to protect farms is important to policy and program initiation and implementation.

Surveyed agribusinesses reported increased sales volume, increased customers numbers, and increased profits over the past five years. This will challenge more producers and businesses to continue to increase, diversify, and market their services and farm products to satisfy local demand while recognizing growing influence from a global marketplace.

Agricultural awareness and career training is an opportunity indicated by survey participants to be of utmost importance. As workforce training is provided through federal funds to equip residents of counties surrounding Fort Bragg for anticipated growth in a variety of industries, agriculture needs to be one of those addressed. As agricultural operations continue to diversify so must educational offerings. Central Carolina Community College has a new Sustainable Agriculture program at the West Harnett campus that provides training and education for those interested in organic agricultural practices. These and other traditional agricultural workforce training opportunities need to be addressed in the region to support the future of the agricultural industry.

Education was reported to be needed in areas of technical expertise to include marketing and business management, taxation and estate planning, farm transition and youth engagement, consumer awareness and acceptability, and environmental regulations and energy opportunities. A network of existing agencies and organizations are poised to undertake these efforts with support from the leadership and citizens of the county.

Continued and expanded support from local government leaders for farmland preservation was noted by all audiences surveyed as of utmost importance. Support of adjusted taxation and education of landowners to understand and participate in these programs is essential. Harnett County Commissioners must embrace additional innovative programs and policies to encourage and support farmers in their efforts to remain viable. The commissioners have a unique opportunity to utilize information herein to assist them in strategically guiding agency efforts to educate and preserve the agricultural industry in Harnett County. To provide incentives for agricultural businesses and operations, much like commercial and industrial operations are

provided, would be one example of the opportunities that exist. Agricultural operations impact the cost of community services at a level similar to commercial/ industrial and far reduced from residential development as reported by Renkow for five counties in North Carolina (Agricultural Development and Farmland Preservation Trust Fund 2008 Annual Report) thereby offering an opportunity for evaluation of such program.

All surveys indicated a common concern for the future of agriculture in Harnett County. This concern was expressed as a perceived void in opportunities and in the interest of youth or careers in agriculture. Additionally, as the farm owners' average age continues to increase, a number of opportunities exist for farmers and their heirs. Although the majority of producers surveyed indicated their intent to leave their farms to an heir that would continue the operation, few have adequately prepared for this transition. Few had broached estate planning or retirement planning for the financial future of all parties involved. For those farmers indicating uncertainty as to the future of their farm, great opportunities exist for innovative planning for preservation of these family farms by developing youth interest in production agriculture and inventive means to encourage a novel transition agreement allowing both the landowner and the prospective farmer to benefit.

Data supports the fact that farmers and land owners are not aware of North Carolina's Enhanced Voluntary Agricultural District Program and while knowledge of the VAD program is noted, enrollment into the program is limited. Educational opportunities abound to accurately disseminate this information to land owners and to encourage their consideration of enrollment.

Forested acreage, if not currently in the present-use taxation program, should be encouraged to participate through the attainment of forest management plans. A teachable moment exists for a number of agencies within the county to be certain that agriculture and forest land owners are taking advantage of all programs and policies that exist to support their operations and holdings.

There will continue to be opportunities as Harnett County's population and development pressure continues to increase and farm operators are faced with decisions to expand, diversify, generationally transition, and face the pressures related to continued county growth. Local government officials and agencies will be challenged and given the opportunity to provide unprecedented leadership to manage the urban/rural interface in a manner that provides growth and opportunity for all residents of the county.

Recommendations

Understanding that land-use policy is determined at the county and municipal level, the following recommendations offer guidance to Harnett County and the Voluntary Agricultural District Board in supporting preservation activities at all levels of government. Also, the recommendations offer guidance for improving the level of education and understanding of the general public with regard to agriculture. The county should expect the recommendations to spark debate that will help to further classify, refine, and prioritize agricultural land preservation initiatives.

Support and commitment of Harnett County, as well as the municipalities and industry, are critical for the success of the Working Lands Protection Plan. All agencies should consider the priorities developed and work to integrate them into their comprehensive plans.

Recommendation 1

Support County Farmland Use Policies and Programs

Local land use in North Carolina remains in competition with residential growth. Harnett County will continue to face this issue with the projected population increase and the need for residential housing. Based upon data collected for this study, there is a high level of local support among county residents for increased planning for conservation and farmland preservation in Harnett County.

Action:

- Conduct formal training for all officials, agencies and others involved in decision making for land-use laws and best practices in planning as related to agriculture and forestry.
- Encourage development on least productive land.
- Integrate county and municipal planning.
- Support agriculture through regulations of subdivision regulations.
- Provide maps to outline location of productive farmland, agricultural districts, and other agricultural resources to better integrate agriculture's interests in all planning.
- As infrastructural needs expand throughout the county, local planners should be encouraged to consider the impact of utility placement on agricultural operations and inform property owners of proposed options for placement.

Implementation Responsibility:

Voluntary Agricultural District Advisory Board, Harnett County Planning Department, Harnett County Soil and Water Conservation District, Harnett County Parks and Recreation Department, Harnett County Cooperative Extension, N.C. Department of

Agriculture and Consumer Services, USDA Natural Resources Conservation Service, Harnett County Division of Forest Resources as well as other regional partners.

Timeline:

Agencies involved began discussions in late 2009 with proposed recommendations for programs and policies identified by mid 2011. This recommendation will require one to three years for short-term development and will require a commitment of the agencies over the long-term as well.

Recommendation 2

Expand County Land Preservation Programs

Harnett County Commissioners have established a Voluntary Agricultural District Board. Local support exists for more farmland preservation and land-use regulations.

Actions:

- Develop an educational program to educate the general public about the benefits of farmland preservation and the agricultural industry.
- Develop an outreach program for farmer enrollment in VAD and other farm preservation programs
- Develop a goal for farmland preservation and enrollment to preserve the rural heritage and open space of the county.
- Evaluate funding to support preservation programs.
- Engage officials in agricultural district renewals.
- Seek potential county financial support through general funds.

Implementation Responsibility:

Harnett County Board of Commissioners, Voluntary Agricultural District Advisory Board, Harnett County Department of Planning, USDA Natural Resources Conservation Service, Harnett County Soil and Water Conservation District, Harnett County Cooperative Extension, Harnett County Economic Development Commission/ Chamber of Commerce, Rural Economic Development and other agencies as needed.

Timeline:

Designated agencies should begin immediately after adoption of the Harnett County Working Lands Protection Plan to educate the citizenry of the importance of agriculture to the county. This effort should be approached as a three-year effort with reevaluation annually as to its success. Efforts should begin no later than mid 2010 with planning completed by the end of 2011 with implementation coinciding with commodity and annual meetings of farm and other organizations in the county.

Recommendation 3

Adopt Farmland Protection as a Harnett County Policy

Usually a Working Lands Protection Plan requires the efforts of all county and municipal departments. It is recommended that the Voluntary Agricultural District Board seek formal adoption of the plan by the Harnett County Commissioners.

Actions:

- Utilize the Working Lands Protection Plan with the Harnett County Land Use Plan.
- Communicate with local and state policy makers and leaders about the plan and methods to implement plan recommendations.
- Seek to coordinate efforts to adopt state funding and state legislation.
- Seek state funds to support this effort and commit local funding to complement.

Implementation Responsibility:

Harnett County Board of Commissioners, Voluntary Agricultural District Advisory Board, Harnett County Planning Department, Harnett County Extension Service, USDA Natural Resources and Conservation Service, Harnett County Soil and Water Conservation District, Harnett County Economic Development Commission/Chamber of Commerce, Harnett County Farm Bureau and other agencies as needed.

Timeline:

Immediately after adoption, all agencies should be provided with copies of the plan and efforts should begin to investigate funding sources for support of local farmland protection planning opportunities. Agency education should be lead by Cooperative Extension, NRCS, and the Soil and Water Conservation District so each agency can better understand its role in farmland preservation. Educational efforts should be completed within 18 months of plan adoption.

Recommendation 4

Promote an Appreciation of Agriculture to All Public Audiences

The attributes of agricultural production and business, while recognized by the majority of respondents, remains an educational opportunity for the larger citizenry of the county. Much of the public has little understanding of the importance of agriculture and how it relates to the overall standard of living. Now is the time to advocate for agriculture industry and embrace all residents.

Actions:

- Develop programs to promote public awareness.
- Identify contact agencies for questions and issues.
- Develop county brochure and pursue website to highlight agriculture and agribusiness.
- Hold countywide meetings to promote agriculture.

Implementation Responsibility:

Harnett County Board of Commissioners, Voluntary Agricultural District Advisory Board, Harnett County Extension Service, Harnett County Farm Bureau, Harnett County Division of Forestry Resources, Harnett Economic Development Commission/Chamber of Commerce, Central Carolina Community College Sustainable Agriculture program, FFA and other organizations.

Timeline:

Ongoing process should begin immediately after adoption of the Working Lands Protection Plan. Agencies should strategize a marketing plan with implementation initiated in early 2012. The Economic Development Commission should be engaged as well as the chamber to assist traditional agricultural agencies in pursuing all virtual avenues of program delivery to the broad citizenry of the county.

Recommendation 5

Develop a Strategy for Retaining and Expanding Agriculture and Agribusiness

Harnett County's history is grounded in production agriculture. There is no formal plan at the present to address the retention and expansion of agriculture and agribusinesses in the county. It becomes increasingly important to establish strategies and goals that focus on supporting the agriculture industry in growth and transition.

Actions:

- Develop a countywide agricultural marketing plan.
- Create strategies to attract agriculture and agricultural businesses.
- Identify key marketing partners.
- Evaluate incentives and economic development programs that could include county agricultural economic development plan.
- Educate landowners and producers about state and business planning, transition planning, taxes and land-use regulations, policy changes, agency agricultural programs and other relevant topics and programs.

- Develop an outreach program specifically targeted to forest landowners to educate them on good forest management, policy changes, and other relevant forestry topics.
- Develop outreach programs to generate public support and understanding.

Implementation Responsibilities:

Voluntary Agricultural District Advisory Board, Harnett County Economic Development Commission/Chamber of Commerce, Harnett County Board of Commissioners, N.C. Department of Commerce, Harnett County Soil and Water Conservation District,

Harnett County Planning Department, Harnett County Farm Bureau, N.C. Department of Agriculture and Consumer Services, Harnett County Division of Forest Resources, N.C. Farm Transition Network, N.C. State Extension Service and other organizations as needed.

Timeline:

Immediately after adoption of Working Land Protection Plan, agency committees should be developed to evaluate marketing, education, and outreach efforts by mid 2011. Program development and outcomes should be developed by 2015.

Recommendation 6

Develop Additional Training and Educational Programs for All Areas of Agriculture

A major emphasis must be placed upon education and training in the agricultural industry for it to survive the demands placed upon it today. Mainstream populations are no longer emerging from agrarian roots. Less than 2 percent of the population of this nation is involved in agriculture. Yet, agriculture remains the very backbone of the nation.

Actions:

- Conduct training and outreach with a focus on agriculture and agriculture related products.
- Promote value-added agriculture, develop niche markets for local produce, and encourage agritourism as methods for farmers to extend their growing season and reach wider audiences.
- Partner with colleges and secondary schools to develop education and workforce training programs with a focus on agriculture.
- Support expansion of Future Farmers of America and Agriculture in the Classroom programs in the public school system.

- Encourage and support public outreach through civic and religious organizations.
- Coordinate services and training programs through all local agencies and institutions.

Implementation Responsibility:

Voluntary Agricultural District Board, N.C. State Extension Service, Harnett County Farm Bureau, Harnett County Division of Forestry Resources, Harnett County Farm Bureau, N.C. Department of Agriculture and Consumer Services, local schools, Central Carolina Community College Sustainable Agriculture program, colleges and universities, Harnett County Soil and Water Conservation District and other local agencies and organizations

Timeline:

Ongoing process to begin immediately upon Working Lands Protection Plan adoption. This recommendation requires a strategy that will be determined in the first 18 months after passage of the plan. This recommendation is recognized as one that must continue over the long term so both short- and long-term strategies will be addressed.

Recommendation 7

Develop a Regulatory and Policy Action Program

The Working Lands Protection Plan will require adoption and implementation at the county and sub-county levels. Also, the county and the Voluntary Agricultural District Board will need to be advocates and regulators with regard to protecting the interest of agriculture.

Actions:

- Encourage local land-use policies that support agriculture and forestry industries.
- Integrate parks and recreation planning.
- Develop energy strategies that promote expansion and diversification of farming operations.
- Encourage education and training expansion for regulatory agencies to better recognize the regulatory impact to agricultural operations.
- Encourage greater use of fiscal impact analysis relative to land-use planning.
- Develop a water recharge assessment policy.

Implementation Responsibility

Voluntary Agricultural District Advisory Board, Harnett County Extension Service, Harnett County Division of Forestry Resources, Harnett County Planning Department,

Harnett County Board of Commissioners, Harnett County Soil and Water District, USDA – NRCS, Harnett County Farm Bureau, N.C. Department of Agriculture and Consumer Services, and other agencies as necessary

Timeline

Beginning immediately upon plan adoption and continuing two to three years with reevaluation at the end of this time period.

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Appendixes

Appendix A

Compatibility Design Concept

Residential Minimum Dimensional and Amenity Requirements (for major subdivisions as defined by the Harnett County Subdivision Regulations)

1. The Compatibility Design Concept has been established for the following purposes:

- a. To protect rural character and agricultural lands
- b. To encourage compatibility between existing land uses and new development
- c. To provide for growth near infrastructure
- d. To improve the quality of development through amenities

Compatibility Development requirements are made up of four (4) key components: zoning district, land use class, minimum lot size, and open space. The table below contains the regulations for this type of development. The subject property for this use must be compatible with the zoning district and land use class. The minimum lot size stated is only permitted if the required improvements indicated are met.

2. Land Use Class

- a. MG: Municipal Growth Land Use Class
- b. RDN: Rural Development Node Land Use Class
- c. CMU: Company Mixed Use Land Use Class
- d. MDR: Medium Density Residential Land Use Class
- e. LDR: Low Density Residential Land Use Class
- f. ALDR: Agricultural / Low Density Residential Land Use Class

3. Minimum Lot Size: While all lots must not all be of equal size lots within the development shall be equal to or larger than the indicated minimum lot size.

4. Amenities and Design Standards: All are subject to the regulations stated in the "Design Standards" Section of the Harnett County Subdivision Regulations.

- a. Amenities that shall be provided are indicated as such with a checkmark (✓) and amenities that should be provided, but are not required, are indicated as such with a dash (-).
- b. Sidewalks: A checkmark and an asterisk (✓*) indicates that sidewalks shall be constructed on both sides of the street
- c. Public Utilities: Connection shall be provided to at least one (1) public utility (either public water or public sewer) when indicated as such with a number one (1) and connection shall be provided to both public utilities (public water and sewer) when indicated as such with a number two (2).

d. Cul-de-sac Pavement Radius & Street Pavement Width: The location of utilities and sidewalks must be considered in the layout of the residential street system and selection of a right-of-way width. A minimum fifty (50) foot right-of-way width shall be required, but it is recommended that a sixty (60) foot right-of-way width be provided for all residential streets with curb & gutter and sidewalks.

	Lot Width	Front Yard	Rear Yard	Side Yard	Corner Side Yard	Open Space	Street Trees	Curb & Gutter	Sidewalks	Public Utilities	Pavement Radius	Pavement Width	Foundation Survey
RA-40 Zoning													
land use class: mg, rdn, cmu, mdr, ldr, aldr													
≥40,000 sq. ft. minimum lots	150'	35'	25'	10'	20'	0%	-	-	-	-	-	-	-
≥35,000 sq. ft. minimum lots	150'	35'	25'	10'	20'	0%	-	-	-	1	-	-	-
≥28,000 sq. ft. minimum lots	100'	35'	25'	10'	20'	10%	-	-	-	1	-	-	-
land use class: mg, rdn, cmu, mdr													
≥21,000 sq. ft. minimum lots	100'	35'	25'	10'	20'	20%	-	-	-	1	-	-	-
≥17,500 sq. ft. minimum lots	80'	35'	20'	10'	10'	30%	-	-	-	1	-	-	-
land use class: mg, rdn, cmu													
≥14,000 sq. ft. minimum lots	80'	35'	25'	10'	20'	40%	✓	✓	✓	2	-	-	✓
RA-30 Zoning													
land use class: mg, rdn, cmu, mdr, ldr, aldr													
≥30,000 sq. ft. minimum lots	100'	35'	25'	10'	20'	0%	-	-	-	-	-	-	-

	Lot Width	Front Yard	Rear Yard	Side Yard	Corner Side Yard	Open Space	Street Trees	Curb & Gutter	Sidewalks	Public Utilities	Pavement Radius	Pavement Width	Foundation Survey
≥25,000 sq. ft. minimum lots	100'	35'	25'	10'	20'	0%	-	-	-	1	-	-	-
≥20,000 sq. ft. minimum lots	80'	35'	20'	10'	20'	10%	-	-	-	1	-	-	-
land use class: mg, rdn, cmu, mdr													
≥15,000 sq. ft. minimum lots	80'	30'	25'	10'	20'	20%	✓	✓	✓	1	-	-	✓
≥12,500 sq. ft. minimum lots	70'	25'	20'	10'	20'	30%	✓	✓	✓	2	40'	29'	✓
land use class: mg, rdn, cmu													
≥10,000 sq. ft. minimum lots	70'	20'	15'	10'	15'	40%	✓	✓	✓	2	40'	29'	✓
RA-20R(M) Zoning													
land use class: mg, rdn, cmu, mdr, ldr, aldr													
≥20,000 sq. ft. minimum lots	80'	35'	25'	10'	20'	0%	-	-	-	-	-	-	-
≥15,000 sq. ft. minimum lots	80'	30'	25'	10'	20'	0%	✓	✓	✓	1	-	-	✓
≥12,000 sq. ft. minimum lots	70'	25'	20'	10'	20'	10%	✓	✓	✓	2	40'	29'	✓
land use class: mg, rdn, cmu, mdr													
≥9,000 sq. ft. minimum lots	70'	20'	15'	10'	15'	20%	✓	✓	✓	2	40'	29'	✓
≥7,500 sq. ft. minimum lots	70'	20'	15'	10'	15'	30%	✓	✓	✓*	2	40'	29'	✓
land use class: mg, rdn, cmu													

	Lot Width	Front Yard	Rear Yard	Side Yard	Corner Side Yard	Open Space	Street Trees	Curb & Gutter	Sidewalks	Public Utilities	Pavement Radius	Pavement Width	Foundation	Survey
≥6,000 sq. ft. minimum lots	60'	15'	10'	5'	15'	40 %	✓	✓	✓*	2	40'	29'		✓
- optional	✓ required	1 public water or sewer					2 public water and sewer							

Appendix B

Cumberland County Lease of Development Rights Program

Cumberland County has developed a lease of development rights program that targets landowners who are in the "critically important" or "important" designations by the Joint Land Use Study of 2008. A sample of a Lease of Development Rights agreement is below.

Tax Parcel PIN #(s) - _____

This instrument prepared by and should be returned to:

Grainger R. Barrett County Attorney P.O. Box 1829 Fayetteville, N.C. 28302

STATE OF NORTH CAROLINA COUNTY OF CUMBERLAND

MILITARY MISSION AND OPERATIONS AREA CONSERVATION AND PROTECTION AGREEMENT FOR A DEFINITE TERM

This MILITARY MISSION AND OPERATIONS CRITICAL AREA CONSERVATION AND PROTECTION AGREEMENT FOR A DEFINITE TERM ("Agreement") is made on this 1st day of October, 2005, by _____ ("Grantor"), and the COUNTY OF CUMBERLAND, North Carolina, ("Grantee"), a body politic and corporate and a subdivision of the State of North Carolina, P.O. Box 1829, Fayetteville, N.C. 28302.

RECITALS & PURPOSES

A. Grantor is the sole owner in fee simple of the property ("Property"), being approximately ____ acres, in the County of Cumberland, State of North Carolina and being that tract or portion of a tract identified in Exhibit A attached hereto and by this reference incorporated herein; and

B. The Grantee has authority in Part 4, Art. 19, of Chapter 160A of the North Carolina General Statutes to acquire, lease and/or enter into deeds, easements and other agreements to preserve and conserve open space and natural resources; and

C. The Property is located in the Fort Bragg Land Use Study Area conducted by the Fort Bragg Regional Land Use Advisory Commission, and is designated a military mission and operations critical or important tract in the Cumberland County Planning Department Small Area Land Use Study for such area; and

D. Fort Bragg and Pope Air Force Base missions are critical to the security and well-being of the nation, and are central to the identity, quality of life and economic vitality of the Cumberland County community; and

E. The overall aggregate pattern of development of land uses around Fort Bragg and Pope Air Force Base directly affects the suitability and compatibility of military missions which can be performed at the bases; and

F. It is in the public interest to maintain and enhance the military missions of Fort Bragg and Pope Air Force Base, and that further intense and/or urban development of tracts five acres or larger designated military mission and operations critical and important in the study area be minimized, while protecting property owners' property rights, economic interests and investment expectations; and

It is in the public interest that Cumberland County afford owners of tracts five acres or larger designated military mission and operations critical and important in the study area a voluntary opportunity to enter into Agreements intended to minimize further intense and/or urban development of their tracts during the term of the Agreement by maintaining (i) open spaces, or (ii) woodland, agricultural, or rural settings, scenic vistas and natural views, or

(iii) natural resources such as pastures, meadows, fields, rock outcroppings, creeks, streams, wetlands, croplands, etc.

NOW, THEREFORE the Grantor hereby unconditionally and irrevocably bargains and sells and conveys to Cumberland County, its successors and assigns, an easement for the term stated below for conservation and open space and natural resources protection purposes. Grantor covenants and agrees, for the direct benefit of Cumberland County, to preserve and conserve the Property substantially in the same condition and state of development as exists on the effective date hereof for the term of ten (10) years from the date this Agreement is recorded in the Cumberland County Registry, terminable as set forth herein.

The effective date of this Agreement shall be the date it is recorded in the Cumberland County Registry. Grantor may terminate this Agreement effective no sooner than five years from the commencement hereof, but only on at least one year's prior written notice to County.

Article I. Uses and Activities.

A. Definitions.

1. Current Uses include agriculture generally, such as farming, livestock, husbandry, horticulture, silviculture, nursery, timber, forest products, and other miscellaneous uses. Activities associated with livestock uses include raising, feeding, breeding, herding, moving, loading, buying and selling horses, cattle, goats, chickens, and dogs. Current Activities associated with agriculture uses include disking, fertilizing, and applying herbicides, insecticides, pesticides and fungicides to cropland and pasture. They also include planting, sowing, harvesting, cutting, raking, baling, milling, grinding, and storing row crops, hay, grass, and straw. Current Activities associated with timber uses include planting, fertilizing, burning and applying herbicides, insecticides, fungicides, and pesticides to timberland. They also include harvesting, felling, logging, loading, transporting, and selling timber, logs, poles, pulpwood, and firewood. Current Activities associated with forest products include clearing, burning, and applying herbicides, insecticides, pesticides and fungicides to timberland. They also include raking, baling, loading, storing, and selling pine straw. Other Miscellaneous Uses and Activities include hunting, fishing, trapping; leased hunting, fishing and trapping rights; riding horses, mules and ponies; clearing land, removing stumps; drilling wells; installing water and electric lines, and building driveways, unimproved roads, fire lines, farm residences, farm buildings, well houses, and sheds in support of farming and agriculture. Current Uses and Activities also include the rental and maintenance of the three dwellings that currently exist on the Property.

2. Commercial Uses. Industrial, manufacturing or commercial uses and activities not directly related to or supportive of agricultural, horticultural, silvicultural, forestry, nursery or other uses permitted under the A-1 zoning classification.

3. Development. Development includes the construction, building, sale, lease, rent, and maintenance, of houses, offices, plants, facilities, buildings, roads, parking lots, grounds and associated infrastructure not directly related to or supportive of agriculture, horticulture, silviculture, forestry, nursery or of other uses permitted under the A-1 zoning classification.

B. Prohibited and Restricted Uses and Activities.

During the term of this agreement, the following activities are prohibited or restricted:

1. "Commercial Uses" and "Development" as described in Article I, Paragraph A. are specifically prohibited.

2. Grantor may not itself, or permit others to, dump trash, ashes, garbage, waste, abandoned vehicles, appliances, or machinery, or other materials on the property.
3. Filling, excavation, dredging, mining or drilling, or removal of topsoil, sand, gravel, rock, peat, minerals or other materials, or changes in the topography of the land shall be prohibited except as necessary for the purposes of combating erosion or as incidental to Permitted Uses and Activities allowed by this Agreement.
4. Although permitted uses in the A1 zoning classification, quarries, airports, assemblies, motor vehicle service stations and borrow source operations shall not be permitted under this Agreement.
5. The Property may not be subdivided, or partitioned, except that the Property may be subdivided into tracts five acres in size or larger.

C. Permitted Uses and Activities.

1. Current Uses and Activities described in Article I, Paragraph A. are permitted and can be expanded or extended without limitation or restriction.
2. Additional Uses or Activities, i.e., any uses or activities that are not Current Uses and Activities and that are not Prohibited and Restricted Uses and Activities, but are related to or extensions of Permitted Uses and Activities shall be considered Permitted Uses and Activities, however, Best Management Practices associated with those Additional Uses or Activities must be implemented. The term “related to or extensions of Permitted Uses and Activities” shall be construed and interpreted broadly consistent with the intent of this Agreement, to allow the widest variety of agricultural uses, including, by way of example but not of limitation, directly supporting retail uses such as feed stores or blacksmith shops and retail outlets for agricultural products such as nurseries or wineries, while avoiding urban-type development not appropriate, consistent with proper land use planning, to be located near active military uses now existing or existing during the term of this Agreement. The term “related to or extensions of Permitted Uses and Activities” shall be construed and interpreted broadly to allow Grantor wide flexibility in adapting to and evolving changed agricultural conditions and best management practices.

Such Additional Activities may include, for example, farming, silviculture, husbandry, timber, forestry, horticulture, nursery or related uses or businesses (such as, by way of example but not by way of limitation, agricultural supply or nursery wholesale and retail sales). Best Management Practices may include, for example, taking appropriate steps to maintain water quality, minimize sedimentation in or over the Property or into surface waters, etc.

In adopting Additional Uses and Activities, the parties desire to conserve, where consistent with such uses, the Property’s (i) open spaces, and/or (ii) woodland, agricultural or rural settings, and/or (iii) scenic and natural vistas, and/or natural

resources such as meadows, pastures, fields, woods, croplands, rock outcroppings, creeks, streams, wetlands, etc.

Article II. Enforcement and Remedies.

A. Upon any breach of the terms of this Agreement by Grantor that comes to the attention of the Grantee, the Grantee shall notify the Grantor in writing of such breach. The Grantor shall have ninety (90) days after receipt of such notice to begin undertaking actions that are reasonably calculated to correct promptly the conditions constituting such breach. If the breach remains uncured after ninety (90) days, the Grantee may enforce this Agreement by appropriate legal proceedings including for injunctive and other related relief.

B. Grantee, its employees and agents and its successors and/or assigns, shall have the right, with reasonable notice and at reasonable times, to enter the Property for the purpose of inspecting the Property to determine whether the Grantor and its successors and/or assigns are complying with the terms, conditions and restrictions of this Agreement. Grantor shall not be liable to Grantee, its employees and agents and its successors and/or assigns, for any personal injury or damage which may result from Grantee's exercise of this right of inspection, and Grantee shall, to the extent allowed by law, hold harmless and indemnify Grantor against any such personal injury or damage which may result from Grantee's exercise of this right of inspection.

C. Nothing contained in this Agreement shall be construed to entitle Grantee to bring any action against Grantor for any injury or change in the Property caused by third parties, resulting from causes beyond the Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken in good faith by the Grantor under emergency conditions to prevent, abate, or mitigate significant injury to life, damage to property or harm to the Property resulting from such causes.

Article III. Documentation and Title.

A. Property Condition. The parties acknowledge that the Property is currently developed to the following extent, as generally described in Exhibit B, attached hereto and incorporated by reference, which sets forth a narrative description of the general extent of use and/or development of the property as of the date hereof. Exhibit C, attached hereto and incorporated by reference, is an aerial photograph of the Property from the County's GIS system.

B. Title. The Grantor covenants and represents that the Grantor is the sole owner and is seized of the Property in fee simple and has good right to grant this Agreement and convey the easement rights hereby conveyed, that the Property is free and clear of any and all encumbrances, except agreements of record, and Grantor covenants that the Grantee shall have the use of and enjoy all of the benefits derived from and arising out of the aforesaid Agreement. .

Article IV. Compensation.

A. In consideration of this Agreement, Grantee shall pay to Grantor \$____ annually on each February 1 that this Agreement is in effect, contingent upon (i) Grantor's compliance herewith, and (ii) Grantor's timely payment of ad valorem property taxes attributable to the calendar year preceding such February 1. Grantor acknowledges that such payment is made in consideration of the term hereof being at least ten (10) years. If Grantor shall terminate this Agreement in his, her or its discretion prior to expiration of the stated term hereof, then Grantor shall reimburse to Grantee a pro rata portion of the compensation payments made hereunder, as follows: (I) if termination occurs during the first five years, Grantor shall reimburse Grantee all amounts paid by Grantee as compensation hereunder; (II) if termination occurs after the fifth year, then Grantor shall reimburse Grantee half [50 percent] of all amounts paid by Grantee as compensation hereunder attributable to any period after the fifth year of the term hereof. Grantor shall make such payment to Grantee within 45 days after the effective date of a termination triggering such reimbursement obligation.

B. In further consideration of this Agreement, Grantee shall assess, during the term of this agreement, Grantor's Property for ad valorem property tax purposes at the lower of its current assessment or the assessment which Grantee's Tax Administrator would apply to the Property were the Property zoned CD (Conservation District). The Grantor and Grantee acknowledge that Grantee's Tax Administrator assesses CD real property at the rate of \$____ per acre.

C. Nothing in this agreement shall be construed to affect or otherwise alter the zoning classification of the Property at the end of the term of this agreement. Nothing in this agreement shall be construed to affect or otherwise alter the Grantor's use of the Special Use tax program at the end of the term of this agreement.

Article V. Miscellaneous.

A. Subsequent Transfers. Grantor agrees for itself, its successors and assigns, to notify Grantee in writing of the names and addresses of any party to whom the Property, or any part thereof, is to be transferred after the effective date hereof at least ten business days prior to the time said transfer is consummated. Grantor, for itself, its successors and/or assigns, further agrees to make specific reference to this Agreement in a separate paragraph of any subsequent lease, deed or other legal instrument by which any interest in the Property is conveyed.

B. Conservation Purpose. Grantee, for itself, its successors and assigns, agrees that this Agreement shall be held by it exclusively for conservation of natural resource, agricultural, agroforestry, silvipasture, forestry, horticulture, silviculture, open space purposes or related uses as more fully described above.

C. The parties hereto agree that the benefits of this Agreement are not assignable.

D. Construction of Terms. This Agreement shall be construed to promote the purposes of the North Carolina enabling statute set forth in N.C.G.S. 160A-401 et seq., which authorizes the creation of open space and natural resource conservation agreements, easements, deeds, etc. for purposes including those set forth in the recitals herein.

E. Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the Agreement and supersedes all prior discussions, negotiations, understandings or agreements relating to the Agreement. If any provision shall be found to be invalid, the remainder of the provisions of this Agreement, and the application of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

F. Recording. The Grantee may record this instrument and any amendment hereto in timely fashion in the official records of the Cumberland County, North Carolina Registry.

G. Notices. Any notices shall be sent by certified mail, return receipt requested, addressed in the case of Grantor, to _____

_____, and in the case of Grantee to Cumberland County, c/o County Manager, P.O. Box 1829, Fayetteville, N.C. 28302, or to such other addresses such party may establish in writing to the other.

H. Environmental Condition of Property. The Grantor warrants and represents to the Grantee that to the best of its knowledge as of the date hereof there are no hazardous materials, substances, wastes, or environmentally regulated substances located on, in or under the Property or used in connection therewith. Notwithstanding the foregoing, Grantor expressly advises Grantee that asbestos was a common building material at the time many structures on the Property were constructed, and Grantor makes no warranty or representation to Grantee as to the presence or absence of asbestos in any particular structure on the Property. Grantor further expressly advises Grantee that use of regulated or restricted chemicals incorporated into pesticides, insecticides, herbicides, etc. is customary, common and normal incidental to the activities carried on by Grantor and permitted hereunder, and Grantor makes no warranty or representation to Grantee as to the presence or absence of such regulated or restricted chemicals on the Property.

TO HAVE AND TO HOLD unto Cumberland County, North Carolina, its successors and assigns, forever on the terms above stated. The covenants agreed to and the terms, conditions, restrictions and purposes imposed as aforesaid shall be binding upon Grantor and Grantor's successors and/or assigns, and shall continue as a servitude running during the term of this Agreement with the Property.

IN WITNESS WHEREOF, Grantor and Grantee by authority duly given, have hereunto caused these presents to be executed by their respective officers and their corporate seals affixed, as of the date first appearing hereinabove, to be effective upon the date of recordation in the public registry of Cumberland County, North Carolina.

GRANTOR:

WITNESS:

_____ By: _____

By:

GRANTEE: CUMBERLAND COUNTY,

ATTEST NORTH CAROLINA

By: _____

_____ Chairman of the Board of Commissioners

Apendix C

Agricultural Producer, Agribusiness and Non-Farm Surveys

Surveys and interviews were conducted in the county to account for the trends, issues, and opportunities the community as a whole identifies for agriculture. The populations targeted were: producers/landowners, agri-businesses, and the general non-farm public.

The county team distributed the surveys through their meetings, to their advisory boards, and on their websites. The team also provided names of key people in the county to interview. All the survey and interview responses were compiled to determine the response.

Copies of the three surveys are below.